DOCUMENT RESUME

ED 440 189 UD 033 484

AUTHOR	Choy, Susan P.
TITLE	Low-Income Students: Who They Are and How They Pay for Their Education. Postsecondary Education Descriptive Analysis Reports. Statistical Analysis Report.
INSTITUTION	National Center for Education Statistics (ED), Washington, DC.
REPORT NO	NCES-2000-169
PUB DATE	2000-04-00
NOTE	114p.
AVAILABLE FROM	ED Pubs, P.O. Box 1398, Jessup, MD 20794-1398. Tel: 877-433-7827 (Toll Free). For full text: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000169.
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Research (143)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	Educational Finance; *Financial Needs; Financial Support; Higher Education; *Low Income Groups; Minority Groups; *Paying for College; Student Characteristics; Student Employment; Tables (Data); *Undergraduate Students

ABSTRACT

This report examines the characteristics of low-income undergraduates and how they pay for college. It begins with a profile of low-income students, comparing them with their not-low-income counterparts. Then, focusing on low-income students who attend full time, full year, it examines their financial need, describes the contribution of financial aid, and presents what is known about how they close the gap between what they pay and the amount of aid they receive. Finally, the report compares 3-year persistence among low-income and not-low-income undergraduates. The analysis relies primarily on the 1995-96 National Postsecondary Student Aid Study, with supplemental information from other national surveys. In 1995-96, 26% of all undergraduates were low income, and 17% of dependent undergraduates were classified as low income. Virtually all low-income undergraduates attending full time, full year had financial need, and most received some financial aid. Grants were received by 81%, and 51% had loans. A substantial part of the gap between student budget and financial aid came from student earnings. Many factors affect academic persistence, but low income students enrolled in 1995-1996 were less likely to have earned a degree or still be enrolled in 1998. Three appendixes contain supplemental tables, a glossary, and technical notes. (Contains 34 tables and 11 figures.) (SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 440 189

NATIONAL CENTER FOR EDUCATION STATISTICS

Statistical Analysis Report **April 2000**

Postsecondary Education Descriptive Analysis Reports

Low-Income Students: Who They Are and How They Pay for Their Education

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

U.S. Department of Education
Office of Educational Research and Improvement **NCES 2000-169**

UD033484

Customer Survey of OERI Publication Users

To help us improve future editions of this publication and give you better customer service, we would appreciate your comments on this survey form. Please check the appropriate box(es) below for each question. Responses will be kept completely confidential. You may return the survey by mail or FAX. It can be folded and taped closed to allow mailing to the address listed on the reverse side of this form, or it can be returned by FAX to 202–219–1321. **Many thanks for your customer feedback—it is very important to us!**

1a. Name of publication

1b. Publication number

1c. Author name

2. How did you receive a copy of this publication?

- ❑ Bought it
- ❑ Borrowed it
- ❑ Mailing list membership
- ❑ Telephone request
- ❑ Internet request
- ❑ Other (please describe)

3. Was this publication easy to get?

❑ Very ❑ Somewhat ❑ Not at all

4. How did you find out about this and other OERI publications? (Check all that apply.)

- ❑ Conferences
- ❑ Journal articles
- ❑ Teacher/educator
- ❑ Professional associations
- ❑ Internet (WWW)
- ❑ Publication announcement
- ❑ Received in mail
- ❑ OERI staff contact

5. For what purposes did you use this OERI publication? (Check all that apply.)

- ❑ Planning
- ❑ Policy or legislation
- ❑ Administrative decisions
- ❑ Teaching, class material
- ❑ Research/analysis
- ❑ General information
- ❑ Writing news articles, TV or radio material
- ❑ Marketing, sales, or promotion
- ❑ Other (please describe)

6. Did the publication help you accomplish whatever you needed it for?

❑ Yes ❑ No ❑ Partially

7. What is your occupation?

❑ Parent ❑ Teacher ❑ Administrator
❑ Librarian ❑ Researcher ❑ Statistician
❑ Journalist/writer ❑ Policy Analyst ❑ Student
❑ Program Planner
❑ Other (please specify)

8. How could this OERI publication (or other OERI publications) better meet your needs? (Check all that apply.)

- ❑ More important topics in education
- ❑ More timely release of data
- ❑ More text introductions to each section
- ❑ More research statistics
- ❑ Shorter reports (less than 10 pages)
- ❑ Other (please describe)

9. Overall, how satisfied are you with this product?	**Very Satisfied** ❑	**Satisfied** ❑	**Dissatisfied** ❑
a. Comprehensiveness of information	❑	❑	❑
b. Clarity of writing (readability, interpretability)	❑	❑	❑
c. Clarity of presentation (e.g., tables, charts)	❑	❑	❑
d. Timeliness of information	❑	❑	❑
e. Accuracy of information	❑	❑	❑
f. Clarity of technical notes	❑	❑	❑
g. Usefulness of resources and bibliography	❑	❑	❑
h. Organization	❑	❑	❑
i. Length	❑	❑	❑
j. Format	❑	❑	❑

BEST COPY AVAILABLE

PAPERWORK BURDEN STATEMENT
Office of Educational Research and Improvement (OERI)
Publication Customer Survey

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 1880–0529. The time required to complete this information collection is estimated to average 10 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s), suggestions for improving this form, or concerns regarding the status of your individual submission of this form, write directly to: **P. Quinn, Room 204, Media and Information Services, OERI, U.S. Department of Education, 555 New Jersey Avenue NW, Washington, DC 20208–5570.**

OERI Publication Customer Survey

Media and Information Services
555 New Jersey Avenue NW—Rm. 202
Washington DC 20208–5570

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 012935 WASHINGTON DC

POSTAGE WILL BE PAID BY US DEPARTMENT OF EDUCATION

V. Allen
Room 200
Media and Information Services
Office of Educational Research and Improvement
US Department of Education
555 New Jersey Avenue NW
Washington DC 20208–5570

Fold on line—TAPE CLOSED—DO NOT STAPLE

10. Do you have any suggestions regarding the content or format of future editions of this publication or other comments?

MIS 1999–6532

NATIONAL CENTER FOR EDUCATION STATISTICS

Statistical Analysis Report April 2000

Postsecondary Education Descriptive Analysis Reports

Low-Income Students: Who They Are and How They Pay for Their Education

Susan P. Choy
MPR Associates, Inc.

Larry Bobbitt
Project Officer
National Center for Education Statistics

U.S. Department of Education
Office of Educational Research and Improvement NCES 2000-169

U.S. Department of Education
Richard W. Riley
Secretary

Office of Educational Research and Improvement
C. Kent McGuire
Assistant Secretary

National Center for Education Statistics
Gary W. Phillips
Acting Commissioner

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

NCES activities are designed to address high priority education data needs; provide consistent, reliable, complete, and accurate indicators of education status and trends; and report timely, useful, and high quality data to the U.S. Department of Education, the Congress, the states, other education policymakers, practitioners, data users, and the general public.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other NCES product or report, we would like to hear from you. Please direct your comments to:

National Center for Education Statistics
Office of Educational Research and Improvement
U.S. Department of Education
555 New Jersey Avenue NW
Washington, DC 20208–5574

April 2000

The NCES World Wide Web Home Page is: ***http://nces.ed.gov***
The NCES World Wide Web Electronic Catalog is: ***http://nces.ed.gov/pubsearch/index.asp***

Suggested Citation
U.S. Department of Education. National Center for Education Statistics. *Low-Income Students: Who They Are and How They Pay for Their Education*, NCES 2000–169, by Susan P. Choy. Project Officer: Larry Bobbitt. Washington, DC: 2000.

For ordering information on this report, write:

U.S. Department of Education
ED Pubs
P.O. Box 1398
Jessup, MD 20794–1398

or call toll free 1–877–4ED–Pubs.

Content Contact:
Aurora D'Amico
(202) 219–1365

Executive Summary

Students from low-income families typically need substantial financial assistance to be able to attend college. This report examines the characteristics of low-income undergraduates and how they pay for college. It begins with a profile of low-income students, comparing them with their not-low-income counterparts. Then, focusing on low-income students who attend full time, full year, it examines their financial need, describes the contribution of financial aid, and presents what is known about how they close the gap between what they have to pay and the amount of aid they receive. Finally, the report compares three-year persistence among low-income and not-low-income undergraduates.

For the purposes of this report, low-income students were defined as those whose family income was below 125 percent of the federally established poverty level for their family size. Because the prices students pay and the financing strategies they adopt vary substantially with institutional level and control, students at public 4-year, private, not-for-profit 4-year, and public 2-year institutions are examined separately. Within institution type, dependents, independents without dependents, and independents with dependents are also considered separately because their financial obligations are quite different, and they are treated differently by the financial aid system.

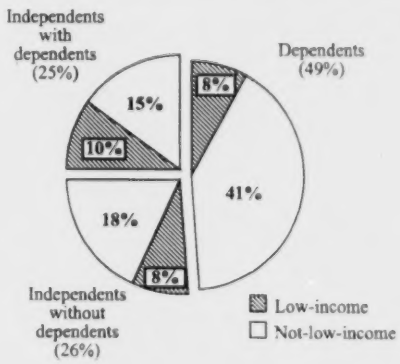
The analysis relies primarily on the 1995–96 National Postsecondary Student Aid Study (NPSAS:96), but also uses selected data from NPSAS:93 for comparison and data from the Beginning Postsecondary Students Longitudinal Study (BPS:96/98) to examine persistence.

Profile of Low-Income Undergraduates

In 1995–96, 26 percent of all undergraduates were low income. At private, not-for-profit 4-year; public 4-year; and public 2-year institutions, the proportion of students who were low income ranged from 21 to 26 percent. A much greater proportion of students at private, for profit institutions were low income (48 percent), but relatively few (about 5 percent of all undergraduates) attended this type of institution.

About one-half (49 percent) of all undergraduates were dependents, and a relatively small proportion were from low-income families (figure A). The other half of the undergraduate population was about evenly divided between independents

Figure A—Percentage distribution of undergraduates by income and dependency status: 1995–96



BEST COPY AVAILABLE

without and with dependents of their own. (Spouses are not considered dependents.) Independent students were more likely than dependents to be low income because their parents' financial circumstances are not considered for aid purposes.

Overall, 17 percent of dependent undergraduates were defined as low income. Certain groups were particularly likely to be in this category, including minorities and students whose parents had not gone to college. As parents' education increased, the percentage who were low income decreased (from 55 percent when both parents had less than a high school diploma to 23 percent when at least one parent had finished high school to 12 percent when at least one parent had attended college).

Independents without dependents were almost twice as likely as dependents to be low income (31 percent were in this category). Rather than reflecting a disadvantaged background (there was no strong relationship between parents' education and students' low-income status), low-income status was closely related to marital status, age, and employment and enrollment status. Independents without dependents were much more likely to be low income if they were single rather than married. The likelihood of being low income declined with age, in part because older students are more likely to be married and have greater earning potential. Students who did not work or considered themselves primarily students were more likely to be low income than those who considered themselves primarily employees. About half of those who enrolled full time, full year (51 percent) were low income.

Independents with dependents include single or married students with children or other dependents. As indicated earlier, spouses are not considered dependents; their incomes are included in calculating family income. This group was the most likely to be low income (40 percent). As was true for independents without dependents, low-income status was related to marital status, age, and primary role while enrolled (student or employee). Fifty-six percent of single parents were low income; the younger the students, the more likely they were to be low income; and they were more likely to be low income if they did not work or if they worked but considered themselves primarily students.

Financial Need

Financial need is the difference between the price of attending a postsecondary institution and what the student is expected to pay based on the family's financial circumstances. Compared with the average prices of attending the different types of institutions, the average expected family contributions (EFCs) for low-income students were relatively small (table A). Consequently, virtually all low-income undergraduates attending full time, full year had financial need (that is, the student budget minus EFC was greater than zero). The amounts of financial need were substantial at all types of institutions, ranging from about $5,800 to $16,700, varying with dependency status and type of institution (table A).

Financial Aid

Most low-income students attending full time, full year (86 percent) received some financial aid, and the average amount received by low-income students (calculated including those with no aid) was about $6,100. Most (81 percent) received grants, which averaged $3,900 for those who received them. Loans were an important source of aid as well, with 51 percent borrowing. The average loan for those who borrowed was $4,700.

Table A—Average budget, EFC, financial need, aid, unmet need, net price, and earnings for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96

	Student budget	Expected family contribution (EFC)	Financial need[1]	Total aid	Unmet need[2]	Net price[3]	Earnings
Total[4]	$11,579	$768	$10,876	$6,116	$4,844	$5,443	$2,889
Type of institution and dependency status							
Public 4-year	10,745	760	10,051	6,256	3,903	4,487	3,236
Dependents	10,300	932	9,488	5,531	4,056	4,763	2,593
Independents without dependents	11,137	808	10,329	6,660	3,835	4,476	3,750
Independents with dependents	11,347	149	11,226	7,677	3,564	3,672	3,630
Private, not-for-profit 4-year	17,203	1,127	16,264	10,060	6,367	7,145	2,801
Dependents	17,917	1,503	16,703	10,286	6,622	7,633	2,187
Independents without dependents	16,745	797	16,012	10,718	5,444	6,030	3,613
Independents with dependents	15,237	223	15,014	8,226	6,814	7,012	3,470
Public 2-year	7,659	606	7,051	3,059	4,088	4,598	2,361
Dependents	6,409	637	5,768	2,447	3,354	3,962	2,745
Independents without dependents	9,025	1,128	7,897	3,399	4,871	5,627	1,418
Independents with dependents	8,112	264	7,848	3,482	4,367	4,630	2,478

[1]Student budget minus EFC. In this table, the difference between the average student budget and the average expected contribution is not exactly equal to the average financial need because of missing data for each variable. The same is true for other computed differences in this table. No variable used to compute differences has more than 1 percent missing data for full-time, full-year low-income undergraduates.

[2]Student budget minus EFC minus aid.

[3]Student budget minus all aid.

[4]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution. Averages computed including zero values. For example, average total aid is computed including students with no aid.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Most borrowers (66 percent) did not reach the maximum permitted under the Stafford loan program. As did financial need, aid patterns for full-time, full-year, low-income students varied substantially by type of institution and dependency status.

Aided low-income students attending full time, full year had about 60 percent of their budgets covered by aid. About 60 percent of their aid was in the form of grants and 32 percent was in the form of loans; the rest came from work-study and "other" types of aid. Again, these proportions varied considerably by dependency status and institution type.

Closing the Gap

The net price that low-income students pay for their education is the difference between the student budget and financial aid. This represents the amount that students must come up with to pay for their education. Even for low-income students attending full time, full year, a substantial part of this gap is met by student earnings while enrolled (table A). These earnings do not cover the net price, however. For dependent students, the amounts left after taking into account student earnings appear to be considerably higher than their families could afford to cover (and that data on parent contributions suggest that they are cov-

ering), especially at private, not-for-profit 4-year institutions. For independents without dependents, earnings cover most of the net price at 4-year public institutions, but the gaps at private, not-for-profit 4-year institutions and public 2-year institutions are large. The pattern is similar for independents with dependents.

Despite these apparent gaps between the net price of attending and students' financial resources, the students are enrolled. How do they manage? One possibility is that they are surviving on a lower budget than estimated by their institutions. Other possibilities are that students are actually earning more than estimated (students often have numerous short-term jobs), are able to save from summer earnings, or have savings accumulated before they enrolled. Yet another is that they have received more than estimated from their parents. Or, they may be borrowing from sources other than student loan programs.

The actual contributions of parents and other family members are difficult to determine because families typically do not keep detailed records and this type of information is difficult to recall many months later in a telephone interview. In addition to the amounts reported as allowances, about one-third of all low-income students attending full time, full year reported that their parents paid for all or part of their tuition, housing, meals, or books, but we do not know how much this amounts to. Low-income independent students do not necessarily come from low-income backgrounds, so their parents may have substantial resources.

Low-Income Status and Persistence

Many worry that financial problems may force low-income students to drop out or interrupt their education. Persistence is affected by a variety of factors other than income. In order to determine whether persistence is associated with low-income status independently of these other factors, a multivariate analysis was conducted. The results show that low-income students who began their postsecondary education in 1995–96 were less likely than their not-low-income counterparts to have earned a degree or certificate or still be enrolled in 1998. This was true even after controlling for student background (gender, race/ethnicity, and parents' education) and other factors likely to affect persistence (dependency status, institution type, enrollment delay after high school, enrollment status, amount worked, borrowing, and assistance from parents).

Foreword

This report examines the characteristics of low-income undergraduates and how they pay for their education. It begins with a profile of low-income undergraduates, comparing them with their not-low-income counterparts. Then, focusing on low-income students who attend full time, full year, it examines their financial need, describes the contribution of financial aid to meeting their need, and, to the extent possible, how they close the gap between what they have to pay and the amount of financial aid they receive. Data are shown separately by type of institution, and within type of institution, by dependency status for financial aid purposes. Finally, the report compares three-year persistence in postsecondary education for low- and not-low-income undergraduates.

The report relies primarily on data from the 1995–96 National Postsecondary Student Aid Study (NPSAS:96), but also uses selected data from NPSAS:93 for comparison and data from the Beginning Postsecondary Students Longitudinal Study (BPS:96/98) to examine persistence. NPSAS:96 is the fourth in a series of large-scale data collections sponsored by the National Center for Education Statistics that provide detailed information on how students and their families pay for postsecondary education. The first was collected in 1986–87, followed by additional collections in 1990–91, 1992–93, and 1995–96. The 1995–96 Beginning Postsecondary Students Longitudinal Study (BPS:96/98) provides a followup of a sample of respondents included in NPSAS:96 who enrolled in postsecondary education for the first time during the 1995–96 academic year. Detailed information on both of these surveys is available on the NCES website: http://nces.ed.gov.

The estimates presented in this report were produced using the NPSAS:96 and BPS:96/98 Data Analysis Systems (DAS). The DAS is a microcomputer application that allows users to specify and generate their own tables from the NPSAS:96 and BPS:96/98 data and is available for public use through the NCES website. The DAS produces the design-adjusted standard errors necessary for testing the statistical significance of differences shown in these tables. Additional information about the DAS may be found in appendix C of this report and on the NCES website at http://nces.gov/das.

Acknowledgments

We would like to thank all of those who contributed to this report. At MPR Associates, Laura Horn and Lutz Berkner reviewed the analysis at various stages and provided helpful comments. Helen Jang and Vishant Shah ran the tables. Barbara Kridl supervised the production of the report. Andrea Livingston and Karyn Madden edited and proofread the report; Leslie Retallick prepared the graphics; and Francesca Tussing formatted the tables and assembled the final report.

We would also like to acknowledge the careful review and thoughtful comments provided by the following reviewers: Dennis Carroll, Paula Knepper, Roslyn Korb, Bruce Taylor, Ellen Bradburn, and Stephen Broughman, of NCES; and Daniel Goldenberg from the Office of the Under Secretary (OUS).

Table of Contents

	Page
Executive Summary	iii
Foreword	vii
Acknowledgments	viii
List of Tables	xi
List of Figures	xv
Introduction	1
Background	1
Definition of Low Income	2
Data	3
Approach to the Analysis	4
Profile of Low-Income Undergraduates	5
Dependents	8
Independents Without Dependents	8
Independents With Dependents	12
Financial Need	15
Price of Attending	16
Expected Family Contribution (EFC)	17
Financial Need	18
Financial Aid	21
Types of Aid	22
Sources of Aid	29
Relative Importance of Grants and Loans	30
Closing the Gap	33
Unmet Need	33
Net Price	35
Work	36
Parental Financial Support	37
Loans From Parents	39
Summary	40

Page

Changes Between 1992–93 and 1995–96 43

Persistence Among Low-Income Students 47

Summary and Conclusions 51

Appendix A—Supplemental Tables 53

Appendix B—Glossary 75

Appendix C—Technical Notes and Methodology 93

List of Tables

Table		Page
Executive Summary Table		
A	Average budget, EFC, financial need, aid, unmet need, net price, and earnings for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96	v
Text Tables		
1	Percentage of undergraduates who were from low-income families, by dependency status and selected student characteristics: 1995–96	6
2	Percentage distribution of undergraduates according to selected characteristics, by income and dependency status: 1995–96	9
3	Average tuition and fees, student budget, expected family contribution, and financial need for low-income undergraduates enrolled full time, full year, and percentage with financial need, by type of institution and dependency status: 1995–96	16
4	Percentage of low-income undergraduates enrolled full time, full year who applied for and received financial aid, by type of aid, type of institution, and dependency status: 1995–96	21
5	Average amount of aid received by low income undergraduates enrolled full time, full year, by type of aid, type of institution, and dependency status: 1995–96	25
6	Percentage distribution of undergraduates enrolled full time, full year according to amount borrowed through the Stafford loan program, by income status, type of institution, and dependency status: 1995–96	27
7	Average amount borrowed in unsubsidized and total Stafford loans by full-time, full-year undergraduates, by income status, type of institution, and dependency status: 1995–96	29
8	Percentage of low-income undergraduates enrolled full time, full year who received aid and average amount received, by source of aid, type of institution, and dependency status: 1995–96	30

Table **Page**

9 Total aid as a percentage of the student budget and grants, loans, and federal aid as percentages of total aid for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96 31

10 Average budget, EFC, financial need, aid, unmet need, and net price for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96 34

11 Percentage distribution of low-income undergraduates enrolled full time, full year according to amount of unmet need, by type of institution and dependency status: 1995–96 35

12 Percentage of undergraduates enrolled full time, full year whose parents expected them to work, percentage who worked, average hours worked, and average earnings, by income status, type of institution, and dependency status: 1995–96 36

13 Percentage of undergraduates enrolled full time, full year whose parents made direct contributions, percentage who received an allowance from their parents, and average allowance, by income status, type of institution, and dependency status: 1995–96 37

14 Percentage distribution of undergraduates enrolled full time, full year according to the level of other types of support received from their parents, by income status, type of institution, and dependency status: 1995–96 38

15 Percentage of undergraduates enrolled full time, full year who borrowed money from their parents that they expected to repay and average amount borrowed, by income status, type of institution, and dependency status: 1995–96 39

16 Average tuition, budget, financial need, financial aid, net price, and earnings while enrolled for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1992–93 and 1995–96 44

17 Percentage of 1995–96 beginning postsecondary students who attained a degree or were still enrolled in 1998 and the adjusted percentage after controlling for the variables listed in the table 48

Appendix Tables

There is no table A.1 or A.2.

A.3 Average tuition and fees, student budget, expected family contribution, and financial need for low-income undergraduates and percentage with financial need, by selected characteristics: 1995–96 55

Table **Page**

A.4 Percentage of low-income undergraduates who applied for and received financial aid, by type of aid and selected characteristics: 1995–96 57

A.5 Average amount of aid received by low-income undergraduates, by type of aid and selected characteristics: 1995–96 58

A.6 Percentage distribution of undergraduates according to amount borrowed through the Stafford loan program, by income status and selected characteristics: 1995–96 60

A.7 Average amount borrowed in unsubsidized and total Stafford loans, by income status and selected characteristics: 1995–96 61

A.8 Percentage of low-income undergraduates who received aid and average amount received, by source of aid and selected characteristics: 1995–96 62

A.9 Total aid as a percentage of the student budget and grants, loans, and federal aid as percentages of total aid for low-income undergraduates, by selected characteristics: 1995–96 64

A.10 Average budget, EFC, financial need, aid, unmet need, and net price for low income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96 65

A.11 Percentage distribution of low-income undergraduates according to amount of unmet need, by selected characteristics: 1995–96 66

A.12 Percentage of undergraduates whose parents expected them to work, percentage who worked, average hours worked, and average earnings, by income status, type of institution, and attendance status: 1995–96 67

A.13 Percentage of undergraduates whose parents made direct contributions, percentage who received an allowance from their parents, and average allowance, by income status and selected characteristics: 1995–96 68

A.14 Percentage distribution of undergraduates according to the level of other types of support received from their parents, by income status and selected characteristics: 1995–96 69

A.15 Percentage of undergraduates who borrowed money from their parents that they expected to repay and average amount borrowed, by income status and selected characteristics: 1995–96 70

A.16a Average tuition, budget, financial need, financial aid, net price, and earnings while enrolled for low-income undergraduates, by selected characteristics: 1992–93 71

Table **Page**

A.16b Average tuition, budget, financial need, financial aid, net price, and earnings while enrolled for low-income undergraduates, by selected characteristics: 1995–96 72

C1 Standard errors for table 4: Percentage of low-income undergraduates enrolled full time, full year who applied for and received financial aid, by type of aid, type of institution, and dependency status: 1995–96 95

List of Figures

Figure **Page**

Executive Summary Figure

A Percentage distribution of undergraduates by income and dependency status: 1995–96 iii

Text Figures

1 Percentage distribution of undergraduates by income and dependency status: 1995–96 7

2 Average financial need for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96 19

3 Average expected family contribution compared to average full-time, full-year budget, by dependency status and family income: 1995–96 20

4 Percentage of low-income undergraduates enrolled full time, full year with grants and average amount of grants for students with grants, by type of institution and dependency status: 1995–96 24

5 Percentage of low-income undergraduates enrolled full time, full year with loans and average amount of loans for students with loans, by type of institution and dependency status: 1995–96 26

6 Percentage of low-income undergraduates enrolled full time, full year with the maximum Stafford loan for their level, by type of institution and dependency status: 1995–96 28

7 Average amounts for selected components of price and sources of funds for dependent low-income undergraduates enrolled full time, full year, by type of institution: 1995–96 40

8 Average amounts for selected components of price and sources of funds for independent low-income undergraduates without dependents enrolled full time, full year, by type of institution: 1995–96 41

Figure **Page**

9 Average amounts for selected components of price and sources of funds for independent low-income undergraduates with dependents enrolled full time, full year, by type of institution: 1995–96 42

10 Percentage of independent low-income undergraduates enrolled full time, full year who borrowed through student loan programs, by type of institution and dependency status: 1992–93 and 1995–96 45

Introduction

Paying for undergraduate education has traditionally been seen as primarily a family obligation, to be met to the extent possible through some combination of current earnings, savings, and borrowing. Low-income families rarely have substantial savings or assets against which to borrow, and are unlikely to have enough to pay for college out of current income. To place their situation in context, a family at the 20th income percentile (that is, 80 percent of all families have higher incomes) would be required to spend 32 percent of their income to cover the charges for tuition, room, and board at an average-priced public college or university in 1995 and 89 percent at an average-priced private one.[1] Thus, students from low-income families will normally need substantial financial assistance to be able to attend college.

This report examines the characteristics of low-income undergraduates and how they pay for college. It begins with a profile of low-income undergraduates, comparing them with their not-low-income counterparts. It then examines their financial need, describes the contribution of financial aid, and presents what is known about how students close the gap between what they have to pay and the amount of aid they receive. Finally, the report compares three-year persistence rates for low-income and not-low-income undergraduates.

Background

In the years since the passage of the Higher Education Act of 1965, the federal government has established a range of programs to provide financial assistance to students enrolled in postsecondary education. This assistance comes in many forms, including grants, which do not need to be repaid, subsidized and unsubsidized loans, which must be repaid, and subsidized student employment through work-study programs. Most states support students through the tuition subsidy provided to all students at public institutions, and many states offer their own student aid programs over and above the federal ones. Still more financial assistance, usually in the form of grants, comes from institutions, community organizations, employers, and others. While some of these programs are merit based and provide support to students in a wide range of income brackets, most target students with financial need. A fundamental objective of financial aid programs has always been to enable students with limited financial resources to continue their education

[1] U.S. Department of Education, National Center for Education Statistics, *The Condition of Education*, 1997 (NCES 97–388) (Washington, DC: 1997). Private institutions include both not-for-profit and for-profit institutions.

after high school and to minimize the financial constraints that limit students' choice of institutions.

As the price of attending college has escalated, concerns about accessibility and affordability for low-income students have intensified. To determine how low-income undergraduates pay for college and how well the current financial aid system is serving them, this report addresses questions such as: What are the characteristics of low-income students other than their limited financial resources, and how do these characteristics compare with those of other students? What is the price of their undergraduate education, and how much financial help do they need? How many low-income undergraduates received financial aid of each type, and how much did they receive? What proportion of their expenses are not met by financial aid, and what do we know about how they cover these expenses? Do low-income students have lower persistence rates than those with greater financial resources?

While the data available to this study provide useful insights about how low-income undergraduates pay for their education, it is impossible to describe completely how they do so. First, we do not know the exact amounts they pay. An assumption has to be made that the student budget determined by the institution is a close approximation of the price of attending, and this assumption may not always be correct. (This topic is discussed further in the section on the price of attending.) Second, while the amounts of student aid awarded through federal, state, and institutional programs are well documented by the institutions attended, information on other scholarships, employer aid, student earnings, and contributions from families and friends is all student reported through telephone interviews. Consequently, only a limited amount of time is available to gather information. Furthermore, individuals' recollections of the exact amounts of their earnings and of contributions from relatives and friends over a period of a year are unavoidably approximate. Nevertheless, the analysis provides considerable useful information on how low-income students pay for their education, particularly on the extent to which student financial aid programs support them.

Definition of Low Income

For this analysis, low-income students were defined as those whose family income was below 125 percent of the federally established poverty level for their family size. In 1994 (the determining year for 1995–96 financial aid eligibility), the levels were as follows:

Family size	*Poverty threshold*	*125 percent of the poverty threshold*
1	$7,710	$9,638
2	9,976	12,470
3	11,821	14,776
4	15,141	18,926
5	17,900	22,375
6	20,235	25,294
7	22,923	28,654
8	25,427	31,784
9 or more	30,300	37,875

For dependent students, family income includes their parents' income as well as their own; for independents with and without dependents of their own, it includes the student's income and the spouse's income if the student is married. (For financial aid purposes, a spouse is not considered a dependent.)

This definition of low income, also used in an earlier report on low-income students,[2] has several advantages. First, it is independent of who goes to college, meaning that students meeting this criterion are poor relative to the general population, not just relative to other college students. Second, because the poverty levels are stated in terms of both income and family size (as shown above), comparisons among students in different family sizes are appropriate. Finally, the poverty levels are updated annually and adjusted for inflation, allowing meaningful comparisons over time.

Data

This report relies primarily on data collected through the 1995–96 National Postsecondary Student Aid Study (NPSAS:96). NPSAS:96 combines student and parent interview data; institution-reported registration and financial aid data; institutional characteristics matched from the Integrated Postsecondary Education Data System (IPEDS); student background and financial information from FAFSA financial aid forms (aid applicants only); and longitudinal loan data from the National Student Loan Data System (NSLDS) (federal loan recipients only). To examine change over time, selected data from NPSAS:93 are used.

The analysis of persistence uses the 1995–96 Beginning Postsecondary Students Longitudinal Study (BPS:96/98) data to examine the relationship between income status and 2-year persistence rates. BPS:96/98 provides a followup of a sample of respondents included in NPSAS:96

[2]U.S. Department of Education, National Center for Education Statistics, *How Low-Income Undergraduates Financed Postsecondary Education: 1992–93* (NCES 96–161) (Washington, DC: 1996).

who enrolled in postsecondary education for the first time during the 1995–96 academic year. This survey collected information on students' experiences in the first two years of postsecondary education and, if they left within two years of starting, their educational attainment and early labor force experiences.

Approach to the Analysis

Because the prices students pay and the financing strategies they adopt vary substantially with institutional level and control, students at public 4-year; private, not-for-profit 4-year; and public 2-year institutions are examined separately. Students who attended more than one institution in 1995–96 (about 5 percent of all undergraduates[3]) are excluded from most of the analysis in order to avoid the confounding effect of different prices of attending and varying types of aid when a student attends more than one institution.

Within institution type, students who attended full time for the full year (36 percent of all undergraduates) and students who attended part time for the full year (23 percent of all undergraduates) are examined separately. The 41 percent of undergraduates who did not attend either full time, full year or part time, full year have such varied attendance patterns that it is impossible to discuss them meaningfully as a group. The discussion of student characteristics covers all low-income students, but the discussion of how students pay for college focuses primarily on students who attended full time, full year. Data on all students and on part-time, full-year students are presented in tables in appendix A. These tables also show data for students who attended private, for-profit institutions, but not by attendance status because of the relatively few number of students at this type of institution (5 percent of all undergraduates).[4]

The low-income student population consists of traditional college-aged students who are financially dependent on their parents, financially independent students with no dependents of their own, and financially independent students with their own dependents. (Spouses are not considered dependents here.) These three groups have quite different financial resources and obligations and are treated differently by the financial aid system. Therefore, when examining how low-income students pay for their education, it is important to consider each group separately within institution type. Because how students pay for their education generally varies more by institution type than by dependency status, the data are presented by dependency status within institution type rather than by institution type within dependency status.

---

[3]U.S. Department of Education, National Center for Education Statistics, *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1995–96* (NCES 98–084) (Washington, DC: 1998).

[4]Ibid.

Profile of Low-Income Undergraduates

In 1995–96, 26 percent of all undergraduates were low income according to the definition adopted for this analysis (table 1). At private, not-for-profit 4-year; public 4-year; and public 2-year institutions, the proportion of students who were low income ranged from 21 to 26 percent (table 1). A much greater proportion of students at private, for-profit institutions were low income (48 percent); however, as indicated in the Introduction, only 5 percent of all undergraduates attended this type of institution.

Students with certain demographic characteristics were particularly likely to be low income. Students ages 24–29 were in this category (40 percent were low income), as were minorities (black, non-Hispanics, 43 percent; Hispanics, 40 percent; Asian/Pacific Islanders, 34 percent; and American Indian/Alaskan Natives, 42 percent), single parents (56 percent), students from families where neither parent finished high school (38 percent), and students from families where neither parent had gone to college (31 percent).

While the definition of low income used in this analysis is unrelated to the financial aid system, whether a given student would be considered low income or not for this analysis is related to that student's dependency status for determining eligibility for financial aid. For financially dependent students, their parents' incomes and financial circumstances determine their eligibility regardless of whether or not their parents actually provide any financial support. For financially independent students, only the incomes of the students and their spouses are used to determine eligibility. Parents' income is not taken into account, even if the parents provide financial support.

From a financial aid perspective, there are three distinct groups of undergraduates: dependent students; independent students without dependents (spouses are not considered dependents); and independent students with dependents of their own. Each group is profiled separately here. About one-half (49 percent) of all undergraduates were dependent, but a relatively small proportion of all undergraduates were dependents from low-income families (8 percent) (figure 1). The other half of the undergraduate population was about evenly divided between independents without and with dependents (26 and 25 percent, respectively). Independent students were more likely than dependent students to be low income because their parents' income is not included in their family income. Of the entire undergraduate population, 8 percent were low-income dependents, 8

Table 1—Percentage of undergraduates who were from low-income families, by dependency status and selected student characteristics: 1995–96

		Dependency status		
	Total	Dependent	Independent, without dependents	Independent, with dependents
Total	26.4	16.8	31.4	40.3
Gender				
Male	24.4	16.5	35.4	31.1
Female	28.0	17.1	28.3	44.9
Age				
Less than 24 years	22.2	16.8	58.6	78.6
24–29 years	40.4	(*)	37.4	46.2
30 years or older	25.4	(*)	20.8	29.3
Race/ethnicity				
White, non-Hispanic	20.7	10.2	28.5	34.7
Black, non-Hispanic	42.7	35.1	39.9	52.1
Hispanic	40.1	35.8	38.3	48.2
Asian/Pacific Islander	34.0	29.7	38.9	42.2
American Indian/Alaskan Native	42.2	34.9	53.5	43.1
Marital status				
Separated or not married	28.2	16.8	40.0	56.7
Married	19.7	(*)	14.3	23.6
Single parent status				
Not a single parent	22.8	16.8	31.4	27.9
Single parent	55.5	(*)	(*)	55.5
Parents' education				
Less than high school	37.6	55.0	25.0	37.8
High school	30.5	23.2	32.4	38.8
At least some college	22.1	12.0	35.0	45.3
Institution type				
Public 4-year	24.1	15.3	38.9	39.5
Private, not-for-profit 4-year	21.3	15.7	32.9	30.2
Public 2-year	25.7	17.1	23.8	37.8
Private, for-profit	47.9	31.9	46.6	59.3
Delay in postsecondary enrollment				
No delay	19.8	14.5	27.0	34.6
1 year	31.7	21.6	31.1	46.6
2 years or more	31.2	22.9	25.1	37.9
Attendance pattern				
Full-time, full-year, one institution	25.3	15.6	51.3	55.1
Part-time, full-year, one institution	24.7	17.7	23.4	33.5

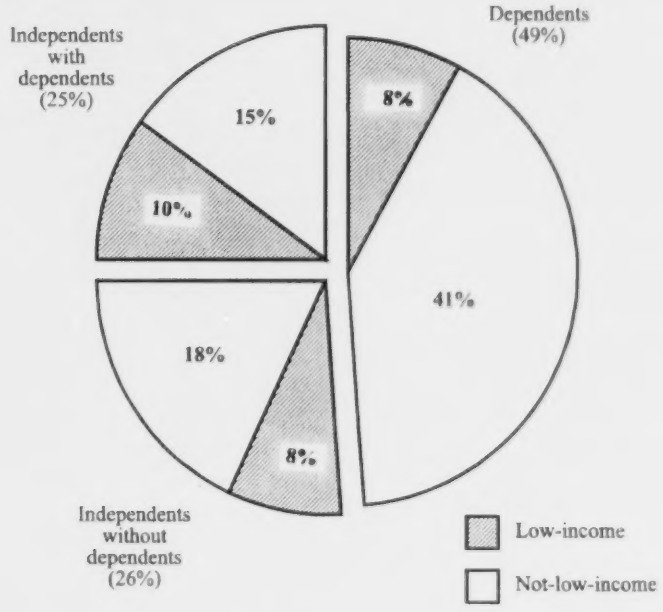
Table 1—Percentage of undergraduates who were from low-income families, by dependency status and selected student characteristics: 1995–96—Continued

		Dependency status		
	Total	Dependent	Independent, without dependents	Independent, with dependents
Housing status				
On-campus	18.3	14.2	64.3	59.8
Off-campus	27.9	15.4	28.0	37.4
With parents or relatives	27.2	19.7	47.9	67.2
Primary role while enrolled				
Not working	30.4	17.9	35.5	51.3
Student working to meet expenses	23.7	13.0	39.0	53.9
Employee enrolled in classes	15.8	13.3	12.9	19.5

*Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Figure 1—Percentage distribution of undergraduates by income and dependency status: 1995–96



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

BEST COPY AVAILABLE

percent were low-income independents without dependents, and 10 percent were low-income independents with dependents.

Dependents

Undergraduates less than 24 years of age are normally considered financially dependent on their parents for the purpose of determining financial aid eligibility. The main exceptions are married students and students with dependents of their own. Both types of students are automatically considered independent even if they are less than 24 years old, but there are relatively few of them. In 1995–96, 96 percent of 18-year-olds and 89 percent of 19- to 23-year-olds were considered dependent.[5]

Overall, 17 percent of all dependent students came from low-income families (low-income would be less than about $19,000 for a family of four, for example), but there was substantial variation by race/ethnicity and parents' education (table 1). Dependent students from minority racial/ethnic groups were much more likely than white, non-Hispanics to be low income (30 to 36 percent versus 10 percent). There was an inverse relationship between the level of parents' education and the percentage of students who were low income. Fifty-five percent of students whose parents both had less than a high school diploma were low income, while 23 percent of those with at least one parent who had finished high school and 12 percent with at least one parent who had attended college were low income.

Among dependent undergraduates, low-income status does not appear to have a major effect on where they enroll, with low-income and not-low-income students about as likely to attend public or private, not-for-profit 4-year institutions and public 2-year institutions (table 2). Low-income dependents, however, were slightly less likely than their not-low-income counterparts to attend full time, full year and more likely to delay their enrollment after high school graduation.

Independents Without Dependents

Undergraduates 24 years or older are considered financially independent for purposes of determining their eligibility for financial aid regardless of their parents' incomes and assets and whether or not their parents provide them with any financial assistance. Undergraduates who are married are also considered independent, regardless of their age (but their spouses are not considered their dependents for financial aid purposes).[6] A spouse's income counts toward the

[5]Ibid.

[6]Ibid. The 26 percent of all undergraduates who were classified as independents without dependents consisted of 17 percent single and 9 percent married.

Table 2—Percentage distribution of undergraduates according to selected characteristics, by income and dependency status: 1995–96

		Low-income				Not-low-income			
	Total	Total	Dependent	Independent, without dependents	Independent, with dependents	Total	Dependent	Independent, without dependents	Independent, with dependents
					All undergraduates				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gender									
Male	43.2	39.8	46.4	50.0	25.7	44.4	47.6	41.8	38.6
Female	56.8	60.2	53.6	50.4	74.3	55.6	52.4	58.2	61.5
Age									
Less than 24 years	54.7	46.0	100.0	15.6	26.2	57.8	100.0	5.1	4.8
24 to 29 years	18.3	28.0	(*)	53.6	30.0	14.8	(*)	41.2	23.6
30 years or older	27.1	26.0	(*)	30.9	43.9	27.4	(*)	53.8	71.6
Race/ethnicity									
White, non-Hispanic	70.5	55.2	44.1	67.0	54.6	76.0	78.1	77.0	68.9
Black, non-Hispanic	12.3	19.9	20.2	13.5	24.9	9.5	7.5	9.3	15.4
Hispanic	10.4	15.8	21.8	10.3	15.4	8.5	7.9	7.6	11.1
Asian/Pacific Islander	5.8	7.5	12.2	7.7	3.5	5.2	5.8	5.5	3.2
American Indian/ Alaskan Native	1.0	1.6	1.7	1.5	1.6	0.8	0.6	0.6	1.4
Marital status									
Separated or not married	79.0	84.4	100.0	84.8	70.9	77.1	100.0	58.2	36.6
Married	21.0	15.6	(*)	15.2	29.1	22.9	(*)	41.8	63.4
Single parent status									
Not a single parent	89.0	76.9	100.0	100.0	38.2	93.4	100.0	100.0	66.6
Single parent	11.0	23.1	(*)	(*)	61.8	6.6	(*)	(*)	33.5
Parents' education									
Less than high school	7.6	10.9	11.7	8.2	12.3	6.5	2.0	12.1	14.2
High school	37.0	42.7	40.8	41.2	45.8	35.0	27.4	42.1	50.5
At least some college	55.3	46.4	47.4	50.6	41.9	58.5	70.6	45.9	35.3
Institution type									
Public 4-year	30.3	27.6	35.1	32.8	16.9	31.3	39.5	23.7	17.5
Private, not-for-profit 4-year	14.2	11.5	17.3	11.0	6.9	15.2	18.9	10.3	10.7
Public 2-year	43.2	42.0	33.5	38.5	52.0	43.6	32.9	56.4	57.8
Private, for-profit	5.3	9.6	5.9	8.2	13.9	3.8	2.6	4.3	6.5
Other	7.0	9.4	8.1	9.5	10.2	6.2	6.1	5.3	7.5
Delay in postsecondary enrollment									
No delay	67.9	57.2	80.9	53.8	38.2	71.2	87.6	53.2	43.9
1 year delay	11.4	15.3	13.8	12.7	18.7	10.2	9.2	10.3	13.0
2 years or more	20.7	27.5	5.3	33.5	43.2	18.6	3.3	36.5	43.0

Table 2—Percentage distribution of undergraduates according to selected characteristics, by income and dependency status: 1995–96—Continued

		Low-income				Not-low-income			
	Total	Total	Dependent	Independent, without dependents	Independent, with dependents	Total	Dependent	Independent, without dependents	Independent, with dependents
Attendance pattern									
Full-time, full-year, one institution	35.9	34.4	50.4	30.7	24.2	36.4	54.9	13.4	13.2
Part-time, full-year, one institution	22.8	21.3	16.4	22.4	24.5	23.3	15.4	33.8	32.6
Other	41.3	44.3	33.3	46.9	51.3	40.3	29.7	52.8	54.3
Housing status									
On-campus	13.8	9.5	21.5	5.7	2.6	15.3	26.4	1.5	1.2
Off-campus	61.1	64.6	31.2	75.4	83.5	59.8	34.6	89.1	94.3
With parents or relatives	25.2	25.9	47.3	18.9	13.9	24.9	39.0	9.4	4.6
Primary role while enrolled									
Not working	32.2	41.0	40.7	37.8	44.0	29.4	32.0	26.7	25.8
Student working to meet expenses	42.8	42.5	51.4	44.4	33.9	42.9	59.1	26.9	17.9
Employee enrolled in school	25.0	16.5	7.9	17.8	22.2	27.6	8.9	46.4	56.3
				Full-time, full-year undergraduates					
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gender									
Male	45.4	41.6	44.4	51.9	25.7	46.7	47.2	44.0	44.0
Female	54.6	58.4	55.7	48.1	74.3	53.3	52.8	56.0	56.0
Age									
Less than 24 years	79.4	61.2	100.0	24.4	32.6	85.5	100.0	12.0	8.2
24 to 29 years	10.8	23.1	(*)	54.4	30.2	6.6	(*)	48.5	31.6
30 years or older	9.9	15.7	(*)	21.3	37.2	7.9	(*)	39.6	60.2
Race/ethnicity									
White, non-Hispanic	72.4	53.9	46.1	67.6	52.8	78.6	79.8	76.1	69.0
Black, non-Hispanic	10.6	18.4	19.2	11.8	24.2	8.0	7.1	9.1	17.1
Hispanic	9.3	17.2	19.9	12.5	17.5	6.6	6.2	8.3	9.7
Asian/Pacific Islander	6.7	8.7	13.4	6.3	3.0	6.1	6.4	6.0	2.2
American Indian/ Alaskan Native	1.0	1.9	1.5	1.8	2.6	0.7	0.6	0.5	2.0
Marital status									
Separated or not married	90.6	88.3	100.0	84.1	72.2	91.4	100.0	55.7	35.1
Married	9.4	11.7	(*)	15.9	27.8	8.7	(*)	44.3	64.9
Single parent status									
Not a single parent	94.3	83.7	100.0	100.0	37.5	97.9	100.0	100.0	71.3
Single parent	5.7	16.4	(*)	(*)	62.5	2.1	(*)	(*)	28.8

Table 2—Percentage distribution of undergraduates according to selected characteristics, by income and dependency status: 1995–96—Continued

		Low-income				Not-low-income			
	Total	Total	Dependent	Independent, without dependents	Independent, with dependents	Total	Dependent	Independent, without dependents	Independent, with dependents
Parents' education									
Less than high school	4.5	9.2	9.9	7.3	10.0	3.0	1.5	11.0	11.5
High school	32.6	43.6	42.6	42.7	46.3	28.8	26.0	37.2	50.9
At least some college	62.9	47.2	47.5	49.9	43.7	68.2	72.5	51.8	37.6
Institution type									
Public 4-year	47.7	43.8	48.6	50.4	28.2	49.0	51.7	41.1	27.3
Private, not-for-profit 4-year	23.9	19.6	25.4	16.9	12.0	25.4	27.4	16.0	14.5
Public 2-year	20.3	22.6	19.3	18.5	33.1	19.4	17.8	25.4	31.4
Private, for-profit	5.3	10.1	4.7	9.6	20.0	3.7	2.0	10.0	15.9
Other	2.9	4.0	2.0	4.7	6.8	2.5	1.2	8.0	10.9
Delay in postsecondary enrollment									
No delay	82.4	67.4	87.3	57.6	41.8	86.8	93.4	56.0	46.3
1 year delay	7.5	12.4	8.7	11.0	20.1	6.0	5.1	11.2	11.1
2 years or more	10.1	20.2	3.9	31.4	38.1	7.2	1.5	32.8	42.6
Housing status									
On-campus	28.7	19.9	32.3	12.6	5.8	31.7	37.3	3.3	2.1
Off-campus	43.1	51.9	26.2	69.6	77.9	40.2	30.6	87.6	92.2
With parents or relatives	28.2	28.3	41.5	17.8	16.4	28.1	32.1	9.2	5.8
Primary role while enrolled									
Not working	36.2	42.1	41.0	39.3	46.9	34.4	33.8	33.5	42.4
Student working to meet expenses	57.0	51.2	54.4	56.1	40.4	58.7	62.5	51.6	26.7
Employee enrolled in school	6.8	6.8	4.6	4.7	12.7	6.8	3.7	14.9	30.9

*Not applicable.

NOTE: Percentages may not sum to 100 due to rounding. Columns for each characteristic sum to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

student's family income. Under limited circumstances, single undergraduates less than 24 years old can be considered independent—if they are military veterans, wards of the court, or if both parents are deceased and they have no legal guardian.[7] Low-income independents without dependents are those who have incomes of less than about $9,600 if single or $12,500 if married.

[7]Ibid.

Independents without dependents were more likely than dependents to be low income (31 percent versus 17 percent) (table 1). As was the case with dependents, minorities were more likely than white, non-Hispanics to be low income. Unlike dependents, however, there was no strong relationship between parents' education and low-income status.[8]

Rather than reflecting a disadvantaged family background, low-income status for independents without dependents is closely related to the student's marital status, age, and employment and enrollment status. Independents without dependents were much more likely to be low income if they were single or separated than if they were married (40 percent versus 14 percent), probably at least in part because there was no spousal income to contribute to the family income. The likelihood of being low income declined with age (from 59 percent of those less than 24 years old to 37 percent of those 24–29 years old to 21 percent of those 30 years or older). This can be explained by the fact that older students are more likely to be married or to have greater earning potential if employed while enrolled. In addition, low-income status was related to the priority that students gave to studying versus working. About one-third (36 percent) of the independents without dependents who were not working and 39 percent of those who worked but considered their primary role to be that of a student were low income. A much lower percentage of those whose primary role was as an employee were low income (13 percent). About one-half (51 percent) of those who enrolled full time, full year were low income.

Compared with their not-low-income counterparts, low-income independents without dependents were more likely to be male, less than 30 years old, and single (table 2). They were also more likely to be enrolled full time, full year, and not to work (or if they did work, to consider themselves primarily students rather than employees).[9]

Independents With Dependents

Undergraduates with dependents are considered financially independent of their parents regardless of their age. This category includes students (single or married) with children or others who are financially dependent on them. Spouses are not considered dependents, and spouses' incomes are included in the calculation of family income.

Independents with dependents were the most likely group of undergraduates to be low income (40 percent compared with 17 percent of dependents and 31 percent of independents with-

[8]The only statistically significant difference was less than high school versus some college.

[9]They were less likely to be enrolled in public 2-year institutions, which might at first be unexpected because of the lower price of attending a public 2-year institution. However, many among this group may have low incomes precisely because they are enrolled full time, full year, which is not a common attendance pattern for students at public 2-year institutions.

out dependents) (table 1). Black, non-Hispanic and Hispanic students were more likely than white, non-Hispanics to be low income. As was true for independents without dependents, low-income status was related to family status, age, and primary role while enrolled (student or employee). Fifty-six percent of single parents were low income; the younger the students were, the more likely they were to be low income; and they were more likely to be low income if they did not work or if they worked but considered themselves primarily students.

Low-income independents with dependents differed from their not-low-income counterparts (table 2). Specifically, they were more likely to be female, less than 30 years old, and single parents. They were also more likely than their not-low-income counterparts to be enrolled full time, full year; to attend a private, for-profit institution; or to be not working or if working to consider themselves primarily students.

Financial Need

Financial need is the difference between the price of attending a postsecondary institution and what the student is expected to pay. Financial aid officers at each institution estimate the price of attending by developing student budgets for various categories of students. The student budgets take into account the amounts students must pay for tuition and fees, books and materials, and reasonable living expenses (based on whether the student lives on campus, independently off campus, or with parents or relatives).

The expected family contribution (EFC) is determined by a formula that takes into account family income and assets, family size, and the number of other college students in the family. For independent students, the financial circumstances of the parents are not considered, only those of the students and their spouses. To calculate financial need for a given student, a financial aid officer takes the appropriate budget and subtracts the student's EFC. The EFC does not take into account the price of attending the institution the student chooses. However, if a student decides to attend a high- rather than low-priced institution, the student will have a higher budget, and consequently there will be a greater difference between the budget and the EFC (that is, greater financial need). There is no guarantee that this need will be fully met, however.

While the price of attending can be estimated in a relatively objective manner, developing the formulas to specify the appropriate amount for a family to pay has been more subjective. The methodology used to calculate the EFC has changed many times over the years as policymakers have attempted to achieve simplicity and fairness and to ration limited student aid funds. Issues related to fairness and simplicity include at what age students' family income should not be considered in determining financial need; how the incomes of noncustodial or stepparents should be treated when parents are divorced; what assets should be counted; what percentage of their assets parents should be expected to contribute; and how much students should be expected to work. Proposed changes in the calculation of the EFC have always been evaluated in terms of their implications for the amount of aid that would have to be disbursed and to whom.[10]

[10]For a discussion of these issues, see National Association of Student Financial Aid Administrators, *Need Analysis: Does It Still Work?* (Washington, DC: June 1995).

Price of Attending

The price of attending (as represented by the student budget) has two major components. One is tuition and fees and the other is expenses, such as housing, food, books, transportation, and miscellaneous expenses.

Tuition and Fees

Charges for tuition and fees vary substantially by institution level and control. On average, tuition and fees for students who attended full time, full year were highest at private, not-for-profit 4-year institutions ($10,500), next highest at public 4-year institutions ($3,400), and lowest at public 2-year institutions ($1,400) (table 3).

Table 3—Average tuition and fees, student budget, expected family contribution, and financial need for low-income undergraduates enrolled full time, full year, and percentage with financial need, by type of institution and dependency status: 1995–96

	Average[1]				Percent with financial need
	Tuition and fees[2]	Student budget[3]	Expected family contribution[4] (EFC)	Financial need[5] (Budget-EFC)	
Total[6]	$4,657	$11,579	$768	$10,876	99.3
Type of institution and dependency status					
Public 4-year	3,404	10,745	760	10,051	99.2
Dependents	3,598	10,300	932	9,488	98.5
Independents without dependents	3,357	11,137	808	10,329	99.8
Independents with dependents	2,906	11,347	149	11,226	99.9
Private, not-for-profit 4-year	10,486	17,203	1,126	16,264	98.4
Dependents	11,494	17,917	1,503	16,703	97.8
Independents without dependents	9,896	16,745	797	16,012	98.9
Independents with dependents	7,628	15,237	223	15,014	100.0
Public 2-year	1,376	7,659	606	7,051	100.0
Dependents	1,226	6,409	637	5,768	100.0
Independents without dependents	1,820	9,025	1,128	7,897	100.0
Independents with dependents	1,264	8,112	264	7,848	100.0

[1]Averages computed including zero values.

[2]Tuition and fees charged to the student, excluding those who attended more than one institution.

[3]Student budget calculated by the institution, excluding those who attended more than one institution. Adjusted for attendance status.

[4]Amount the family was expected to pay.

[5]Student budget minus expected family contribution. In this table, the difference between the average student budget and the average expected family contribution is not exactly equal to the average financial need because of missing data for each variable.

[6]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Dependency status is not a factor in assessing charges for tuition and fees. Thus, any observed variation in average tuition by dependency status reflects a tendency on the part of the different groups to choose different types of institutions. Among low-income undergraduates attending full time, full year, average tuition and fees for dependents were $3,600 at public 4-year institutions and $11,500 at private, not-for-profit 4-year institutions (table 3). Their counterparts who were independent without dependents paid similar average amounts, suggesting that they attended similar types of institutions. Independents with dependents, however, tended to enroll in less expensive institutions than students with other dependency statuses in both the public and private 4-year institutions: their average tuition was $2,900 at public 4-year institutions and $7,600 at private, not-for-profit 4-year institutions. Differences by dependency status at public 2-year institutions were not statistically significant.

Budget

For students attending full time, full year, the total student budget, which includes living expenses as well as tuition and fees, averaged $17,200 at private, not-for-profit 4-year institutions, $10,700 at public 4-year institutions, and $7,700 at public 2-year institutions. Within institution type, average budgets varied by dependency status, however. At public 4-year institutions, independents with dependents paid a lower average tuition than dependents, but their average budget was higher because of their greater living expenses. At public 2-year institutions, the average price of attending was substantially lower for dependents than for either type of independent student, reflecting the fact that dependents in general were more likely to live with parents or relatives. At private, not-for-profit 4-year institutions, there was no statistically significant difference in the average price of attendance by dependency status despite the fact that independents with dependents tended to attend less expensive institutions—higher nontuition costs offset their lower tuition.

Expected Family Contribution (EFC)

As described above, the EFC is calculated on the basis of students' financial circumstances. Where students choose to enroll and the intensity of the enrollment are not considered. Consequently, any observed differences across institution type reflect variations in the financial circumstances of the students who attend those types of institutions. Among the general undergraduate population, EFCs tend to be higher for dependents than independents because parents' income and assets are taken into account in calculating the EFCs of dependents. Within the independent category, EFCs tend to be lower for those with dependents than for those without

them because of the greater financial responsibilities of those who have children or other dependents.

The situation is different for low-income students, however. Because the parents of dependents from low-income families are not expected to contribute very much for their children's education, the difference between the EFCs of dependents and independents without dependents tends to be less. In both cases, the EFC consists primarily of the contribution expected from the students themselves. Disregarding type of institution or attendance status (which do not affect the EFC) low-income dependents had an average EFC of about $1,000 (appendix table A.3). The average EFC for independents without dependents was about $930 (a difference not statistically significant). Independents with dependents had the lowest average EFC ($600) because of their need to support others. Independents with dependents who attended full time, full year were expected to contribute relatively little (a few hundred dollars) because they have little time to work and others to support.

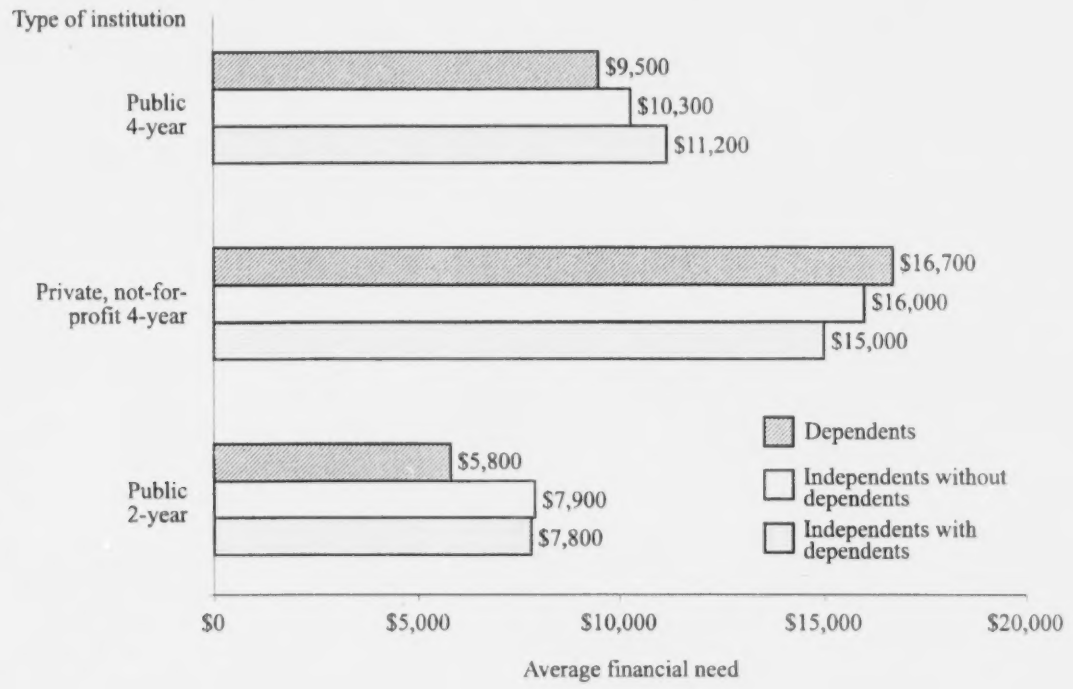
Financial Need

Financial need is calculated by subtracting a student's EFC from the institutionally determined budget. This represents the amount of financial aid for which the student is eligible, although there is no guarantee that this amount will be made available. Among low-income students attending full time, full year, virtually all had financial need, regardless of type of institution attended or dependency status (table 3). The average amounts these students needed were substantial and varied with the type of institution attended and dependency status, ranging from $5,800 for dependents at public 2-year institutions to $16,700 for dependents at private, not-for-profit 4-year institutions (figure 2).[11] For each dependency status, full-time, full-year students at private, not-for-profit 4-year institutions had the greatest need, followed by those at public 4-year institutions and then those at public 2-year institutions.

Among low-income students attending part time, full year, generally at least 9 out of 10 had financial need, with the exception of independents without dependents at public 2-year institutions. Among this group, 78 percent had financial need (appendix table A.3).

[11]The difference between the average student budget and the average EFC is not exactly equal to the average financial need shown in table 3 because of missing data for each variable.

Figure 2—Average financial need for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96

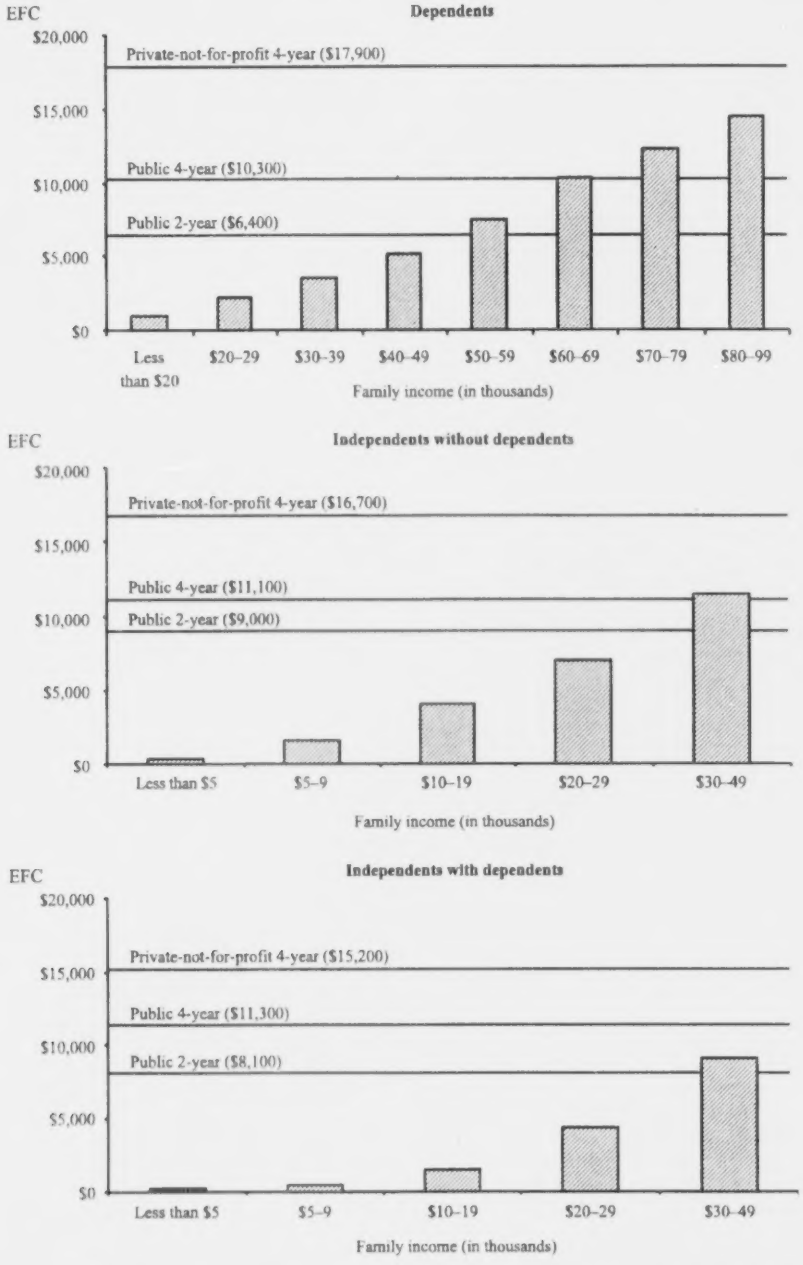


SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Figure 3 shows, for each dependency status, the relationship between the average budgets associated with attending the various types of institutions on a full-time, full-year basis and the average EFCs for each family income level. At each income level, the difference between the average budget and average EFC is the average amount of financial aid for which students at that income level would have been eligible (although not necessarily receive).

At an average-cost institution of each type, dependent undergraduates from families with less than about $50,000 annual income would have been eligible for financial aid if they attended full time, full year. Students from families with higher incomes would have been eligible only at certain types of institutions. Among independent students enrolled full time, full year, those without dependents would have been eligible for aid at an average-cost postsecondary institution of each type if their incomes were less than about $30,000, and those with dependents would have been eligible if their incomes were less than about $50,000.

Figure 3—Average expected family contribution compared to average full-time, full-year budget, by dependency status and family income: 1995–96



NOTE: The horizontal lines on the figure represent the average student budgets for full-time, full-year students at the indicated type of institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

BEST COPY AVAILABLE

Financial Aid

Given the level of financial need described above, one might expect that almost all low-income students would apply for aid. Most did, but not all. Among those attending full time, full year, 89 percent applied for aid (table 4). The percentage applying ranged from 78 percent to 96 percent, depending on their dependency status and type of institution attended.

Students who did not apply for financial aid were asked to state the reasons they did not apply (they could supply more than one reason). Twenty-two percent reported that they did not

Table 4—Percentage of low-income undergraduates enrolled full time, full year who applied for and received financial aid, by type of aid, type of institution, and dependency status: 1995–96

			Type of aid				
	Applied for aid	Any aid	Grants	Pell grant[1]	Loans	Work study	Other[2]
Total[3]	88.8	86.2	80.9	71.5	50.9	14.8	10.2
Type of institution and dependency status							
Public 4-year	89.7	86.9	81.7	72.9	58.6	13.6	9.3
Dependents	87.9	84.7	80.1	67.3	47.7	14.8	7.0
Independents without dependents	89.6	86.9	78.6	72.7	69.2	10.9	12.5
Independents with dependents	95.6	94.0	92.4	90.2	71.2	15.2	10.1
Private, not-for-profit 4-year	93.9	89.7	85.6	70.3	64.1	29.7	11.2
Dependents	93.6	87.9	84.1	67.7	61.8	34.9	10.2
Independents without dependents	95.5	93.7	88.9	71.1	70.8	24.0	17.6
Independents with dependents	92.4	90.1	86.1	79.0	62.8	18.6	5.1
Public 2-year	84.1	83.0	77.8	69.7	20.2	12.9	10.0
Dependents	82.0	79.8	75.3	67.4	16.5	11.0	5.0
Independents without dependents	77.9	77.7	65.3	55.0	20.5	9.1	14.6
Independents with dependents	90.0	89.4	87.9	80.8	23.9	17.0	12.3

[1]Included in grants.

[2]All other types of aid, such as assistantships, veterans benefits and military tuition aid, vocational rehabilitation, and JTPA.

[3]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

apply because they believed their family income was too high to qualify for financial aid; 33 percent reported that they could pay without aid; 9 percent indicated that they did not want to incur debt to finance their education, and 7 percent missed the application deadline.[12] (There were too few cases to determine if there were any differences by dependency status.)

Why would low-income students believe that their family income was too high to qualify for aid or report that they did not need aid, since almost all had financial need as defined by federal financial aid program regulations? In some cases, the belief that their family income was too high for them to qualify for financial aid may simply have been erroneous. Another possibility is that their families' financial circumstances changed between the end of 1994 (the year used for determining the family income) and when they enrolled in 1995–96. Some families may have had low incomes but substantial assets, making financial aid unnecessary. Finally, some independent students might be considered low income according to financial aid rules, but received financial assistance from their parents and therefore did not need financial aid in order to attend.

Types of Aid

The types and amounts of aid low-income students received varied by institution type, reflecting differences in the price of attending and in the availability of state and institutional aid. The types and amounts also varied by dependency status, reflecting differences in students' financial circumstances and in their EFCs. Because there is greater variation across institution types than across dependency status, the discussion is organized by institution type and then within institution type by dependency status.

The average dollar amounts of various types of aid are shown in the tables in two ways: the average for students who received aid and the average across all students, including unaided ones. Both types of averages are useful. The first type of average shows the level of support provided to low-income students who actually receive a given type of aid. The second type of average, by including all low-income students in the base, allows one to compare the relative contributions of the different types of aid and other types of support toward the price of attendance.

Among low-income students who attended full time, full year, 86 percent received some type of financial aid (table 4). At public 4-year institutions, 85 to 94 percent received financial aid, varying with their dependency status. The range at private, not-for-profit institutions was 88 to 94 percent, and at public 2-year institutions, 78 to 89 percent.

[12]U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System, not shown in table.

At public institutions (both 2- and 4-year), for each dependency status, low-income students who attended part time, full year were less likely than those who attended full time, full year to receive financial aid, reflecting the lower prices of attendance faced by part-time students (tables 4 and A.4). At private, not-for-profit 4-year institutions, among low-income dependents and independents with dependents who attended for the full year, there was no statistically significant difference between the percentages of full- and part-time students who received aid. This is at least partly due to the fact that the price of attendance tends to be higher at private, not-for-profit institutions, so more part-time students would qualify for maximum awards in federal programs than would qualify at public institutions.

Most low-income students attending full time, full year (81 percent) received grants (table 4). The average grant for students who received grants ranged from $2,200 for independents without dependents at public 2-year institutions to $7,900 for dependent students at private, not-for-profit 4-year institutions (figure 4 and table 5).

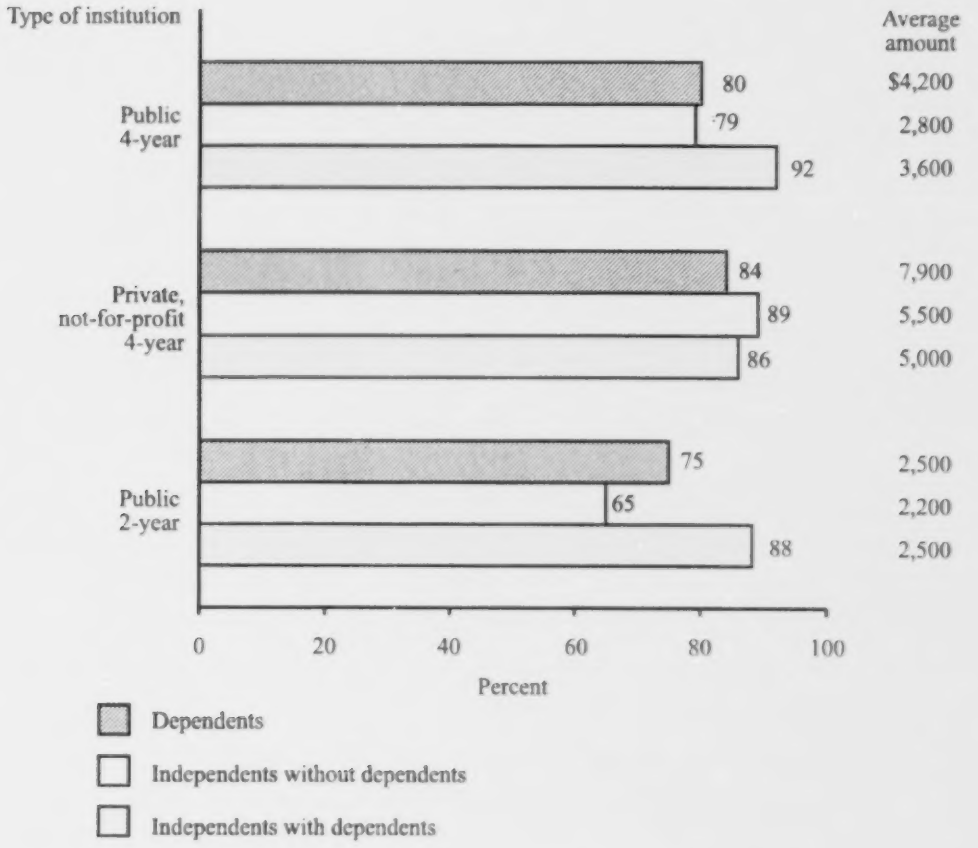
Loans were an important source of financial aid for low-income undergraduates as well, especially at 4-year institutions. Among those attending full time, full year, 59 percent borrowed at public 4-year institutions, 64 percent at private, not-for-profit 4-year institutions, and 20 percent at public 2-year institutions (table 4). For each dependency status, considerably smaller percentages borrowed at public 2-year institutions than at either type of 4-year institution (figure 5).

The amounts students borrow reflect not only their financial need but also the borrowing limits established by the Stafford loan program (which is used by most borrowers) and students' willingness to assume debt. The total limits for subsidized and unsubsidized loans in 1995–96 were as follows:

	Dependents	*Independents*
1st year	$2,625	$6,625
2nd year	$3,500	$7,500
3rd to 5th years	$5,500	$10,500

Reflecting the higher limits they were permitted, independent borrowers at both types of 4-year institutions who attended full time, full year borrowed larger amounts, on average, than their dependent counterparts (figure 5 and table 5).

Figure 4—Percentage of low-income undergraduates enrolled full time, full year with grants and average amount of grants for students with grants, by type of institution and dependency status: 1995–96



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 5—Average amount of aid received by low income undergraduates enrolled full time, full year, by type of aid, type of institution, and dependency status: 1995–96

	Average for low-income students with each type of aid[1]					Average for all low-income students[2]				
	Total aid	Grants	Loans	Work study	Other[3]	Total aid	Grants	Loans	Work study	Other[3]
Total[4]	$7,097	$3,922	$4,663	$1,397	$3,588	$6,116	$3,172	$2,373	$207	$364
Type of institution and dependency status										
Public 4-year	7,195	3,658	4,710	1,510	3,257	6,256	2,988	2,759	205	303
Dependents	6,533	4,203	3,703	1,316	2,921	5,531	3,365	1,767	194	205
Independents without dependents	7,666	2,815	5,454	1,923	3,713	6,660	2,213	3,773	210	463
Independents with dependents	8,170	3,602	5,376	1,509	2,890	7,677	3,329	3,826	230	292
Private, not-for-profit 4-year	11,221	6,822	5,060	1,343	5,156	10,060	5,840	3,245	398	577
Dependents	11,704	7,861	4,233	1,424	5,479	10,286	6,612	2,615	497	561
Independents without dependents	11,437	5,521	6,571	1,179	4,966	10,718	4,909	4,653	283	873
Independents with dependents	9,128	5,074	5,515	1,097	—	8,226	4,368	3,463	204	191
Public 2-year	3,686	2,449	3,545	1,279	2,732	3,059	1,905	717	164	272
Dependents	3,067	2,536	—	—	—	2,447	1,909	327	99	112
Independents without dependents	4,372	2,183	—	—	—	3,399	1,426	1,288	134	552
Independents with dependents	3,895	2,490	3,237	—	—	3,482	2,188	775	249	270

—Too few cases for a reliable estimate.

[1]See table 4 for percentage of low-income undergraduates receiving each type of aid.

[2]Includes unaided low-income students. Average total aid is not equal to the sum of grants, loans, and work study because of missing data for each variable.

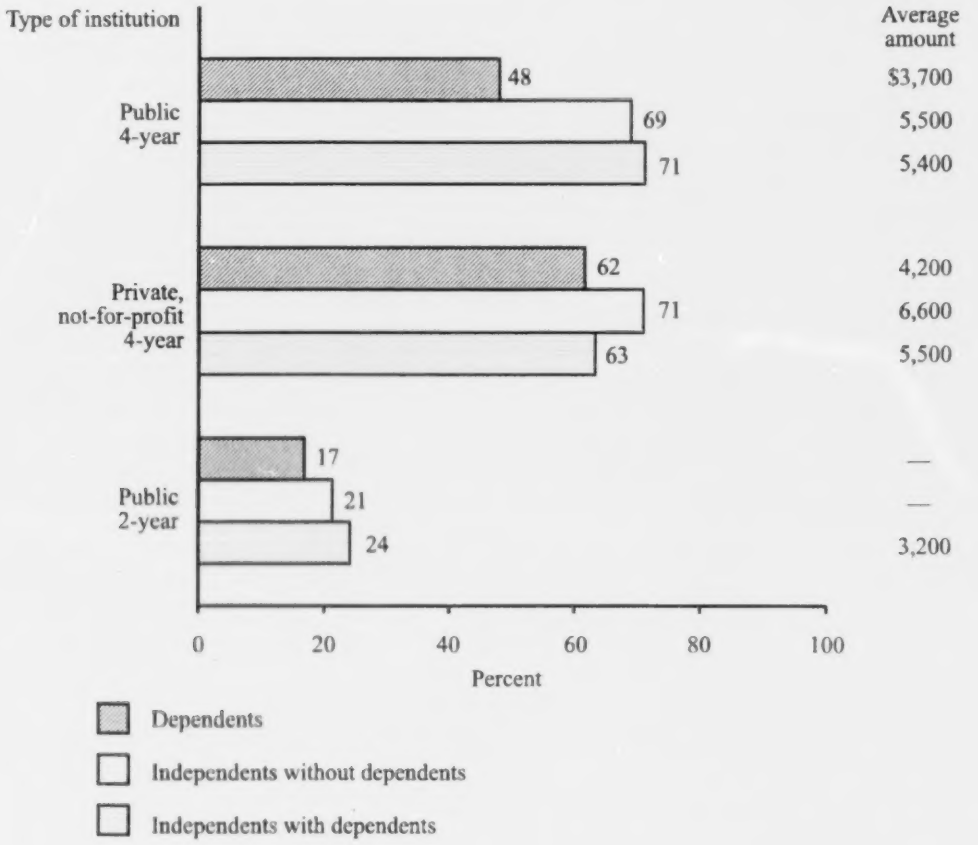
[3]All other types of aid, such as assistantships, veterans benefits and military tuition aid, vocational rehabilitation, and JTPA.

[4]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Figure 5—Percentage of low-income undergraduates enrolled full time, full year with loans and average amount of loans for students with loans, by type of institution and dependency status: 1995–96



—Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Low-income students who attended full time, full year were generally not borrowing as much as they could have. Relatively few (14 percent) borrowed the maximum subsidized Stafford loan allowed for their dependency status and year in school (table 6). Among dependent students, most likely to borrow the maximum were those at private, not-for-profit 4-year institutions (37 percent) (figure 6). Considering all low-income students attending full time, full year who took out Stafford loans, the average amount borrowed was about $4,500 (table 7).

Table 6—Percentage distribution of undergraduates enrolled full time, full year according to amount borrowed through the Stafford loan program, by income status, type of institution, and dependency status: 1995–96

	Low-income			Not-low-income		
	None	Less than maximum	Maximum	None	Less than maximum	Maximum
Total*	51.6	34.1	14.4	61.4	19.0	19.6
Type of institution						
Public 4-year	43.2	44.2	12.6	60.6	21.3	18.0
Dependents	54.1	26.5	19.4	61.9	18.6	19.5
Independents without dependents	32.4	63.1	4.5	56.5	37.6	5.9
Independents with dependents	31.2	61.6	7.2	40.8	51.3	7.9
Private, not-for-profit 4-year	38.7	33.3	28.0	46.6	19.0	34.4
Dependents	41.8	21.3	36.9	46.8	16.9	36.4
Independents without dependents	29.4	52.8	17.9	47.1	36.5	16.3
Independents with dependents	41.5	48.4	10.1	41.3	42.9	15.9
Public 2-year	82.2	12.3	5.5	86.5	9.9	3.6
Dependents	86.0	8.9	5.1	89.5	6.1	4.4
Independents without dependents	79.5	6.3	14.2	77.6	22.4	0.0
Independents with dependents	79.9	19.3	0.8	75.6	22.3	2.1

*Includes students who attended types of institutions other than those included here.

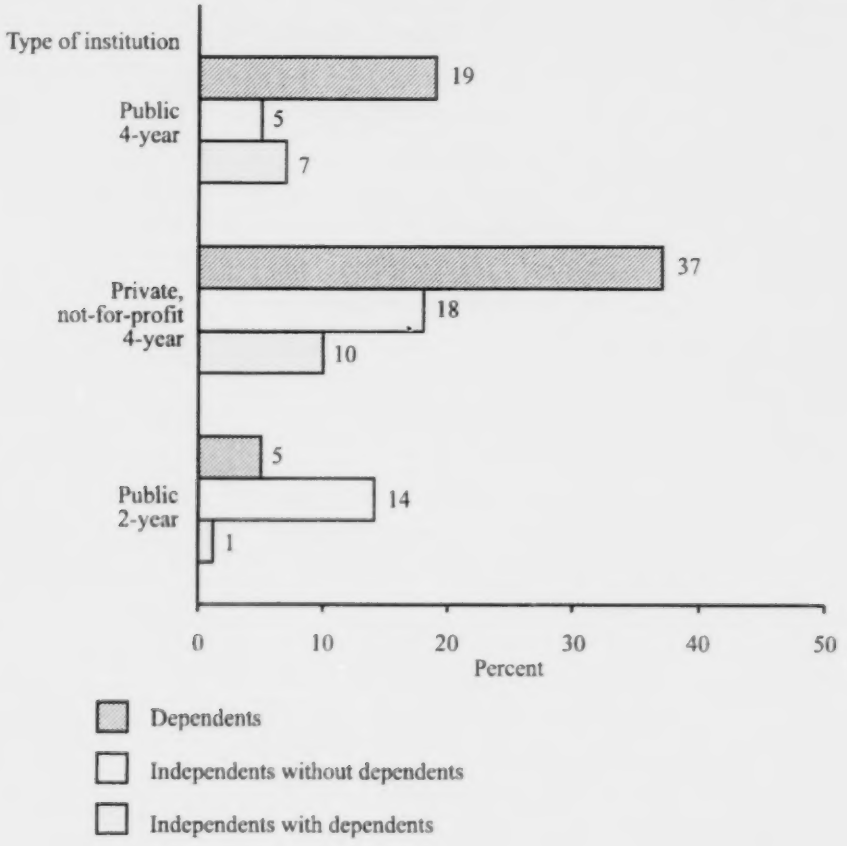
NOTE: Table limited to students who attended only one institution. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Work-study was used more often by dependent students at private, not-for-profit 4-year institutions (35 percent) than by just about any other group of low-income students who attended full time, full year (table 4).[13] Relatively few low-income students received "other" types of aid such as assistantships, veterans' benefits and military tuition aid, and vocational rehabilitation or JTPA funds (10 percent) (table 4). Among those who did, however, the average amounts received were often substantial. For example, at private, not-for-profit 4-year institutions, the average total "other" aid was $5,500 for dependents and $5,000 for independents without dependents who attended full time, full year (table 5).

[13]The one exception was independents without dependents, 24 percent of whom received work-study. The apparent difference was not statistically significant.

Figure 6—Percentage of low-income undergraduates enrolled full time, full year with the maximum Stafford loan for their level, by type of institution and dependency status: 1995–96



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 7—Average amount borrowed in unsubsidized and total Stafford loans by full-time, full-year undergraduates, by income status, type of institution, and dependency status: 1995–96

	Low-income				Not-low-income			
	Stafford unsubsidized		All Stafford loans		Stafford unsubsidized		All Stafford loans	
	Students with loans	All students	Students with loans	All students	Students with loans	All students	Students with loans	All students
Total*	$3,140	$530	$4,502	$2,181	$3,119	$475	$4,009	$1,546
Type of institution and dependency status								
Public 4-year	2,888	490	4,476	2,541	3,072	526	4,030	1,586
Dependents	2,927	142	3,454	1,587	2,905	451	3,705	1,412
Independents without dependents	2,730	862	5,207	3,522	4,105	1,167	6,321	2,748
Independents with dependents	3,236	834	5,172	3,560	3,132	960	5,481	3,244
Private, not-for-profit 4-year	3,538	656	4,773	2,924	3,271	477	4,075	2,177
Dependents	3,561	281	3,820	2,223	2,996	378	3,793	2,019
Independents without dependents	3,543	1,440	6,307	4,453	4,283	1,465	6,835	3,613
Independents with dependents	3,500	873	5,511	3,225	4,196	1,294	6,276	3,686
Public 2-year	3,283	238	3,813	679	2,334	142	2,648	357
Dependents	—	10	—	309	—	125	2,366	247
Independents without dependents	—	708	—	1,288	—	269	—	675
Independents with dependents	—	191	3,451	693	—	126	—	759

—Too few cases for a reliable estimate.

*Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Sources of Aid

Federal, state, and institutional sources of aid were all important to low-income undergraduates attending full time, full year, with 70 to 92 percent receiving federal aid (depending on type of institution attended and their dependency status), 17 to 43 percent receiving state aid, and 17 to 55 percent receiving institutional aid (table 8). Institutional aid was particularly important at private, not-for-profit 4-year institutions, where 55 percent of dependents received institutional aid, as did 52 percent of independents without dependents and 40 percent of independents with dependents.

Table 8—Percentage of low-income undergraduates enrolled full time, full year who received aid and average amount received, by source of aid, type of institution, and dependency status: 1995–96

	Source of aid			Average for low-income students with each type of aid[1]			Average for all low-income students[2]		
	Any federal aid	Any state aid	Any institutional aid	Federal aid	State aid	Institutional aid	Federal aid	State aid	Institutional aid
Total[3]	78.6	31.1	29.7	$5,353	$2,001	$3,119	$4,206	$623	$926
Type of institution and dependency status									
Public 4-year	80.7	34.6	28.7	5,661	2,000	2,337	4,566	692	671
Dependents	75.2	35.1	32.5	4,724	2,274	2,803	3,553	799	910
Independents without dependents	83.3	30.0	26.6	6,316	1,825	1,629	5,264	547	433
Independents with dependents	92.0	41.7	21.3	6,847	1,543	1,872	6,302	643	399
Private, not-for-profit 4-year	79.3	41.1	51.8	7,032	2,428	5,487	5,574	998	2,840
Dependents	76.6	40.0	54.9	6,742	2,343	6,618	5,161	937	3,631
Independents without dependents	83.1	42.7	52.2	7,855	2,611	3,944	6,527	1,114	2,057
Independents with dependents	83.7	43.1	39.6	6,785	2,449	2,727	5,677	1,055	1,079
Public 2-year	74.9	24.8	20.7	3,178	1,045	759	2,379	259	157
Dependents	71.9	22.3	23.4	2,593	1,272	874	1,863	283	205
Independents without dependents	70.0	17.4	16.6	3,446	—	—	2,413	217	182
Independents with dependents	80.8	31.9	20.4	3,573	$818	—	2,887	261	94

—Too few cases for a reliable estimate.

[1]See table 4 for percentage of low-income undergraduates receiving each type of aid.

[2]Includes unaided low-income students.

[3]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Relative Importance of Grants and Loans

For low-income students attending full time, full year who received financial aid, that aid (grants, loans, work-study, and other) covered from 59 to 72 percent of the student budget at 4-year institutions, varying with dependency status, and generally less (49 to 53 percent) at public 2-year institutions (table 9). At the 4-year level, dependent students at public and at private, not-for-profit institutions had similar amounts of their budgets covered (64 and 66 percent, respectively), and in both cases 65 percent of their aid came from grants.

Table 9—Total aid as a percentage of the student budget and grants, loans, and federal aid as percentages of total aid for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96

	Total aid as percent of student budget		Average percent of total aid[1]		
	All students	Aided students	Grants	Loans	Federal aid
Total[2]	52.0	60.4	59.6	32.2	71.9
Type of institution and dependency status					
Public 4-year	58.4	67.1	54.6	38.2	71.9
Dependents	54.3	64.1	65.3	28.4	64.9
Independents without dependents	60.1	69.1	39.5	51.0	77.3
Independents with dependents	67.5	71.8	51.9	42.3	81.4
Private, not-for-profit 4-year	58.3	65.1	60.4	31.5	61.1
Dependents	57.9	65.9	65.4	26.2	57.7
Independents without dependents	62.6	66.8	49.1	41.3	63.2
Independents with dependents	53.5	59.3	59.9	35.4	70.2
Public 2-year	42.1	50.8	75.3	14.0	77.3
Dependents	42.6	53.4	82.0	10.9	76.6
Independents without dependents	38.3	49.3	62.7	21.5	73.5
Independents with dependents	44.0	49.2	75.8	13.0	79.7

[1]For students with aid (86 percent).

[2]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Closing the Gap

There are two major ways to look at the financial situation of low-income students once financial aid is taken into account. One approach is to look at unmet need, which is calculated by subtracting the expected family contribution (EFC) and financial aid from the student budget. The difficulty with this measure of students' financial circumstances is that it assumes that the EFC is a measure of what families can afford, which may or may not be true, because, as discussed earlier, the EFC is a financial aid rationing device as well as an indicator of what a family can afford to pay. The other approach is to look at net price, which is defined as the student budget minus financial aid. This represents the amount of money that students and their families have to come up with during a given year in order for the student to enroll.[14] This section examines both unmet need and net price, but focuses on the availability of student earnings and assistance from families and friends to close the gap between net price and financial aid.

Unmet Need

For low-income students attending full time, full year, the average EFC was far below the average student budget in 1995–96, regardless of type of institution or dependency status (table 10). Student financial need (calculated according to financial aid eligibility rules) averaged $10,900 (ranging from $5,800 for dependent students at public 2-year institutions to $16,700 for dependent students at private, not-for-profit 4-year institutions). Some of this financial need is covered by financial aid (overall, an average of $6,100). Unmet need, the amount left to be covered after subtracting both the EFC and financial aid from the budget, averaged $4,800.

Overall, 87 percent of low-income undergraduates attending full time, full year had unmet need (table 11). Those at private, not-for-profit 4-year institutions were particularly likely to have a very large amount of unmet need: about one out of five had an unmet need of $10,000 or more.

For low-income students attending part time, full year, financial need is substantially less than it is for full-time, full-year students (although 82 percent did have some unmet need). Because the EFC is the same regardless of attendance status, part-time, full-year low-income students have less unmet need primarily because the price of attendance is less (appendix table

[14]Financial aid awarded in the form of loans would be repaid at a later date.

Table 10—Average budget, EFC, financial need, aid, unmet need, and net price for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96

	Student budget	Expected family contribution (EFC)	Financial need[1]	Total aid	Unmet need[2]	Net price[3]
Total[4]	$11,579	$768	$10,876	$6,116	$4,844	$5,443
Type of institution and dependency status						
Public 4-year	10,745	760	10,051	6,256	3,903	4,487
Dependents	10,300	932	9,488	5,531	4,056	4,763
Independents without dependents	11,137	808	10,329	6,660	3,835	4,476
Independents with dependents	11,347	149	11,226	7,677	3,564	3,672
Private, not-for-profit 4-year	17,203	1,127	16,264	10,060	6,367	7,145
Dependents	17,917	1,503	16,703	10,286	6,622	7,633
Independents without dependents	16,745	797	16,012	10,718	5,444	6,030
Independents with dependents	15,237	223	15,014	8,226	6,814	7,012
Public 2-year	7,659	606	7,051	3,059	4,088	4,598
Dependents	6,409	637	5,768	2,447	3,354	3,962
Independents without dependents	9,025	1,128	7,897	3,399	4,871	5,627
Independents with dependents	8,112	264	7,848	3,482	4,367	4,630

[1]Student budget minus EFC.

[2]Student budget minus EFC minus aid.

[3]Student budget minus all aid.

[4]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution. Averages computed including zero values.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

A.10). Average financial need for this group was $6,100, of which $2,400 was covered by aid, leaving an average of $3,700 in unmet need.

The data on unmet need suggest that low-income students, whether they attend full or part time, "can't afford" to be enrolled. How do they do it? The best way to try to answer this question is to look at net price (the student budget minus financial aid) and what we know about sources of funds to cover that amount, including work and assistance from families. Net price represents what these students have to pay in the current year once financial aid is taken into account.

Table 11—Percentage distribution of low-income undergraduates enrolled full time, full year according to amount of unmet need, by type of institution and dependency status: 1995–96

	None	$1 to 999	$1,000 to 2,999	$3,000 to 4,999	$5,000 to 9,999	$10,000 or more
Total*	12.7	8.7	20.1	17.7	30.1	10.6
Type of institution and dependency status						
Public, 4-year	18.9	12.1	19.7	16.5	25.4	7.6
Dependent	15.0	12.3	21.2	18.1	25.1	8.4
Independents without dependents	24.3	11.0	17.1	14.0	25.8	7.8
Independents with dependents	20.2	13.5	20.1	16.4	25.4	4.6
Private, not-for-profit 4-year	12.4	7.2	16.9	18.3	25.8	19.4
Dependent	11.5	7.9	19.0	21.2	19.1	21.2
Independents without dependents	16.5	6.0	18.5	11.0	33.7	14.3
Independents with dependents	9.7	6.6	7.0	18.2	38.4	20.2
Public, 2-year	7.9	7.0	30.4	18.7	32.4	3.6
Dependent	7.2	8.5	42.2	17.5	21.7	2.9
Independents without dependents	16.0	3.2	14.0	15.4	46.1	5.3
Independents with dependents	3.7	7.8	28.1	21.8	35.2	3.4

*Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Net Price

Although students at private, not-for-profit 4-year institutions receive more aid than those at public 4-year institutions, the increased aid does not completely compensate for the higher tuition. For example, among dependent, low-income students attending full time, full year, the average net price at private, not-for-profit 4-year institutions was $7,600, which was about $2,800 more than the average at public 4-year institutions ($4,800) (table 10). The difference between the average net price for these students at public 2- and 4-year institutions was not statistically significant. The higher student budget at public 4-year institutions was offset by higher amounts of aid. Within institution type, the differences by dependency status were not statistically significant in most cases.

Work

A major source of funds to cover the net price appears to be work (assuming students' earnings are going toward their own support). About two-thirds (68 percent) of low-income students attending full time, full year worked while enrolled, and among those who worked, the average number of hours worked per week was 23 (table 12). Some students also may have saved summer earnings to help pay for their education costs, but no data are available on summer earnings. (It would be difficult to estimate the contribution of summer earnings anyway. If students live at home during the summer, they could probably save a substantial amount of their earnings, but if not, they would probably need most of the money they earned to cover their summer living expenses.)

Among full-time, full-year undergraduates at both types of 4-year institutions, low-income and not-low-income dependent students were generally similar in terms of the percentage who

Table 12—Percentage of undergraduates enrolled full time, full year whose parents expected them to work, percentage who worked, average hours worked, and average earnings, by income status, type of institution, and dependency status: 1995–96

	Low-income					Not-low-income				
	Percentage whose parents expected them to work	Percentage who worked	Average hours worked per week while enrolled[1]	Average earnings while enrolled: Students who worked	Average earnings while enrolled: All students	Percentage whose parents expected them to work	Percentage who worked	Average hours worked per week while enrolled[1]	Average earnings while enrolled: Students who worked	Average earnings while enrolled: All students
Total[2]	50.1	67.8	22.6	$4,820	$2,889	48.0	73.6	23.0	$6,182	$4,217
Type of institution and dependency status										
Public 4-year	46.9	70.7	21.5	5,062	3,236	44.1	71.2	21.8	5,038	3,300
Dependents	44.3	71.5	19.4	4,181	2,593	44.1	71.4	21.0	4,479	2,954
Independents without dependents	(*)	70.3	22.5	5,653	3,750	(*)	74.5	26.9	8,693	5,879
Independents with dependents	(*)	69.8	24.9	5,744	3,630	(*)	58.4	28.0	10,573	5,467
Private, not-for-profit 4-year	53.3	75.4	20.0	4,110	2,801	43.0	72.1	18.8	4,795	3,181
Dependents	53.6	73.9	18.9	3,320	2,187	43.0	71.3	17.3	3,441	2,257
Independents without dependents	(*)	84.2	20.4	4,559	3,613	(*)	78.6	31.4	15,275	11,033
Independents with dependents	(*)	66.9	23.3	5,856	3,470	(*)	81.8	35.0	19,942	15,388
Public 2-year	57.2	61.2	25.1	4,477	2,361	62.8	80.6	27.8	8,297	6,351
Dependents	58.3	69.2	22.7	4,565	2,745	62.8	85.1	26.4	5,492	4,493
Independents without dependents	(*)	52.9	—	—	1,418	(*)	76.9	30.6	—	11,633
Independents with dependents	(*)	56.2	28.1	4,859	2,478	(*)	57.1	35.4	23,445	11,046

—Too few cases for a reliable estimate.

*Not applicable.

[1]For those who worked.

[2]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

worked, the number of hours worked per week, and average earnings while enrolled. However, low-income dependent students at private, not-for-profit 4-year institutions were more likely than their not-low-income peers to report that their parents expected them to work (54 percent versus 43 percent). (The apparent differences in the work patterns of low-income and not-low-income dependent students at public 2-year institutions were not statistically significant.) Low-income students who worked while enrolled earned an average of $4,800, which represents a substantial contribution to the net price.

Parental Financial Support

Despite the low-income status of their families, many dependent low-income students attending full time, full year received help from their families in paying for their education. Forty-four percent of those at public 4-year institutions reported that their parents contributed toward their tuition, housing, meals, or books, as did a somewhat larger proportion (61 percent) at private, not-for-profit 4-year institutions (table 13). About one-third at each type of 4-year institution received allowances, and about half as many (17 percent) at public 2-year institutions did so.

Table 13—Percentage of undergraduates enrolled full time, full year whose parents made direct contributions, percentage who received an allowance from their parents, and average allowance, by income status, type of institution, and dependency status: 1995–96

	Low-income				Not-low-income			
			Average allowance for year				Average allowance for year	
	Direct contribution[1]	Allowance	(if received)	(all students)	Direct contribution[1]	Allowance	(if received)	(all students)
Total[2]	35.3	20.3	$2,078	$326	70.4	33.1	$2,479	$748
Type of institution and dependency status								
Public 4-year	34.4	22.5	2,043	368	69.2	37.2	2,623	907
Dependents	43.6	33.6	1,752	477	74.1	40.0	2,459	916
Independents[3]	25.7	11.6	2,810	268	20.9	9.0	—	816
Private, not-for-profit 4-year	46.0	26.7	2,149	421	85.8	37.9	2,575	892
Dependents	60.5	32.8	1,514	361	88.3	38.9	2,343	831
Independents[3]	23.3	15.8	—	518	31.3	17.9	—	2,127
Public 2-year	29.8	11.5	1,567	124	58.3	20.9	1,669	293
Dependents	41.8	16.8	—	168	65.8	24.5	1,653	343
Independents[3]	17.8	5.0	—	73	16.8	1.0	—	34

—Too few cases for a reliable estimate.

[1]Parents contributed toward tuition, housing, meals, or books.

[2]Includes students who attended types of institutions other than those included here.

[3]Limited to students less than 30 years old with parents.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

At all types of institutions, dependent low-income students attending full time, full year were less likely than their not-low-income counterparts to report that their parents contributed to their tuition, housing, meals, or books. Differences in the percentages receiving an allowance, and if they did receive an allowance, differences in the average amount received, were generally not statistically significant.

Independent students less than 30 years of age who had parents were asked about parental support. Full-time, full-year low-income students in this category were generally much less likely than their dependent counterparts to receive financial help from their parents.[15]

Students were also asked about types of support from parents other than tuition, room and board, books and supplies, or an allowance, and the approximate monetary value of this support (less or more than $1,000). Among those attending full time, full year, about 48 percent of low-income students received such help (with 26 percent receiving $1,000 or less and 21 percent receiving more) (table 14).

Table 14—Percentage distribution of undergraduates enrolled full time, full year according to the level of other types of support received from their parents, by income status, type of institution, and dependency status: 1995–96

	Low-income			Not-low-income		
	No support	$1,000 or less	More than $1,000	No support	$1,000 or less	More than $1,000
Total[1]	52.4	26.3	21.3	29.0	29.2	41.8
Type of institution and dependency status						
Public 4-year	53.6	22.3	24.1	26.7	30.1	43.1
Dependents	44.7	27.2	28.1	20.6	32.7	46.7
Independents[2]	62.1	17.7	20.3	86.0	5.4	8.6
Private, not-for-profit 4-year	47.3	30.8	21.9	25.4	32.9	41.7
Dependents	38.2	36.3	25.6	23.3	33.7	43.0
Independents[2]	61.5	22.2	16.3	67.7	16.6	15.8
Public 2-year	50.3	33.9	15.8	34.3	24.6	41.2
Dependents	38.3	39.9	21.9	24.8	27.0	48.3
Independents[2]	61.9	28.2	9.9	84.4	12.0	3.6

[1]Includes students who attended types of institutions other than those included here.

[2]Limited to students less than 30 years old with parents.

NOTE: Other types of support refers to support from parents other than tuition, room and board, books and supplies, or an allowance. Table limited to students who attended only one institution. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

[15]The difference in the percentages receiving allowances at public 2-year institutions was not statistically significant, however.

Loans From Parents

Among low-income students attending full time, full year, 23 percent of dependents at public 4-year institutions and 20 percent at private, not-for-profit 4-year institutions borrowed from their parents (table 15). The average amounts they borrowed were $2,700 and $5,400, respectively. Since their parents had low incomes, the relatively large size of these amounts suggests that friends and other family members may be helping, that their parents have financial resources (such as assets) not reflected in their income, or that their parents' income had changed since 1994 (the year considered for financial aid in 1995–96).

Table 15—Percentage of undergraduates enrolled full time, full year who borrowed money from their parents that they expected to repay and average amount borrowed, by income status, type of institution, and dependency status: 1995–96

	Low-income			Not-low-income		
	Percent who borrowed	Average amount borrowed (if borrowed)	Average amount borrowed (all students)	Percent who borrowed	Average amount borrowed (if borrowed)	Average amount borrowed (all students)
Total[1]	18.9	$2,784	$527	22.2	$4,367	$969
Type of institution and dependency status						
Public 4-year	19.4	3,006	582	22.7	4,007	907
Dependents	23.0	2,730	629	23.1	3,782	872
Independents[2]	15.8	3,395	537	18.7	6,668	1,244
Private, not-for-profit 4-year	16.1	5,103	820	20.8	8,317	1,727
Dependents	19.7	5,394	1,060	21.4	8,427	1,802
Independents[2]	10.0	—	413	8.6	—	250
Public 2-year	20.1	916	184	23.0	1,168	269
Dependents	12.4	—	83	25.7	1,199	309
Independents[2]	28.7	—	299	7.3	—	38

—Too few cases for a reliable estimate.

[1]Includes students who attended types of institutions other than those included here.

[2]Limited to students less than 30 years old with parents.

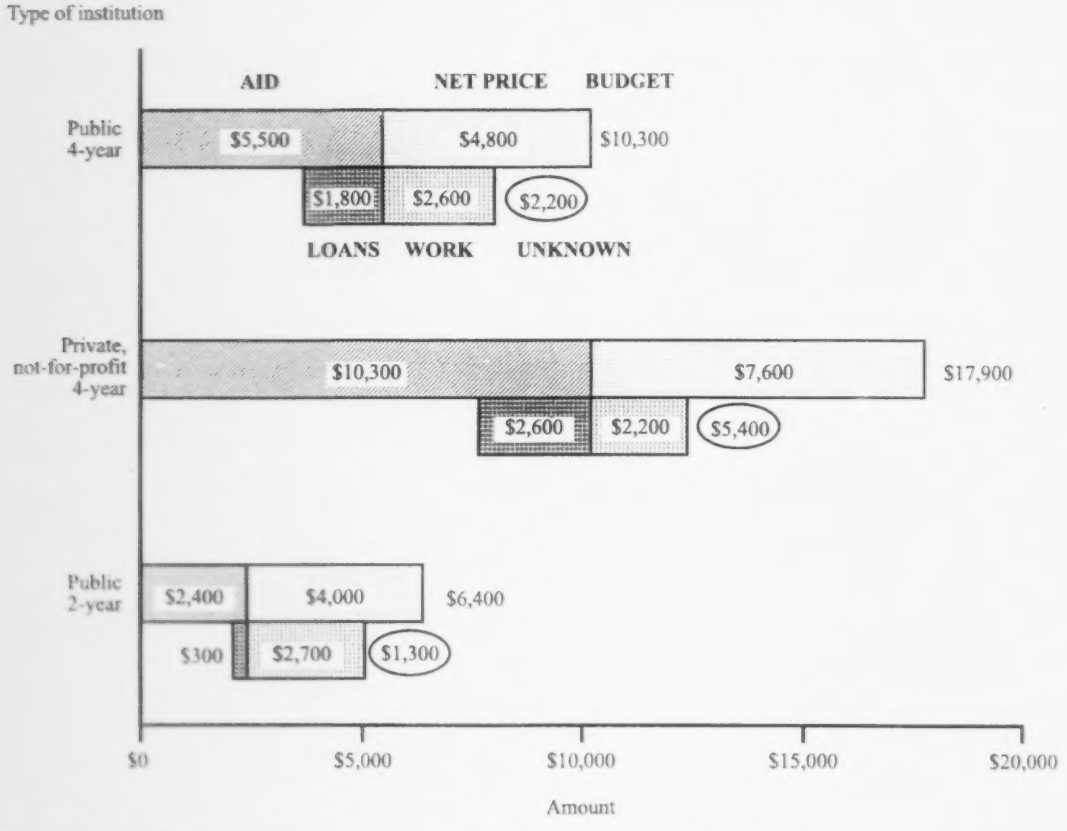
NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Summary

The net price that low-income students pay for their education is the difference between the student budget and financial aid. This represents the amount that students must come up with in the current year to pay for their education (that is, excluding payment on loans that must be repaid in the future). Even for low-income students attending full time, full year, a substantial part of this gap is met by student earnings while enrolled. These earnings do not cover the net price, however. For dependent students, the amounts left after taking into account student earnings appear to be considerably higher than their families could afford to cover (or that data on parent contributions suggest that they are covering), especially at private, not-for-profit 4-year institutions (figure 7). How students cover these amounts is unknown. For independents without

Figure 7—Average amounts for selected components of price and sources of funds for dependent low-income undergraduates enrolled full time, full year, by type of institution: 1995–96



NOTE: Averages computed using zero values. Average loan amounts are included in total aid. Average amount earned while working goes toward but does not meet the net price remaining after aid.

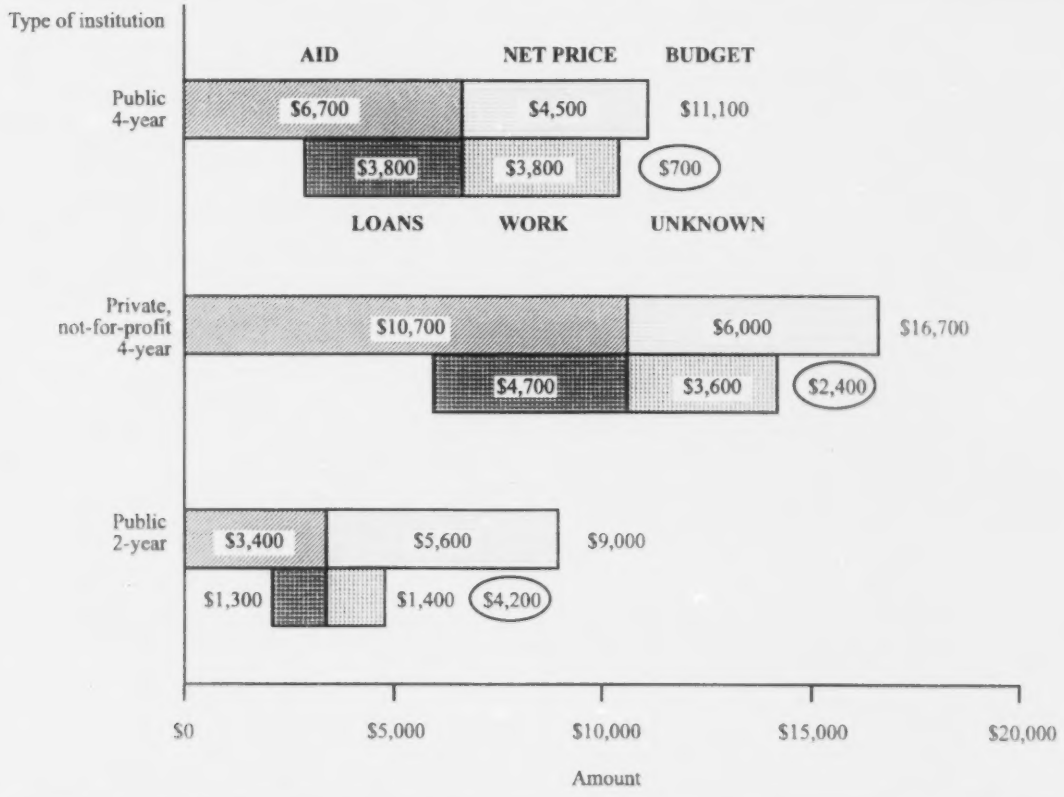
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

BEST COPY AVAILABLE

dependents, earnings cover most of the net price at public 4-year institutions, but the gaps at private, not-for-profit 4-year institutions and public 2-year institutions are large (figure 8). Independents with dependents have a pattern similar to that of independents without dependents (figure 9).

The actual contributions of parents and other family members are difficult to determine, because families do not typically keep detailed records on this type of information, and it is difficult to recall months later in a telephone interview. In addition to the amounts reported as allowances, about one-third of all low-income students attending full time, full year reported that their parents paid for all or part of their tuition, housing, meals, or books, but we do not know what

Figure 8—Average amounts for selected components of price and sources of funds for independent low-income undergraduates without dependents enrolled full time, full year, by type of institution: 1995–96

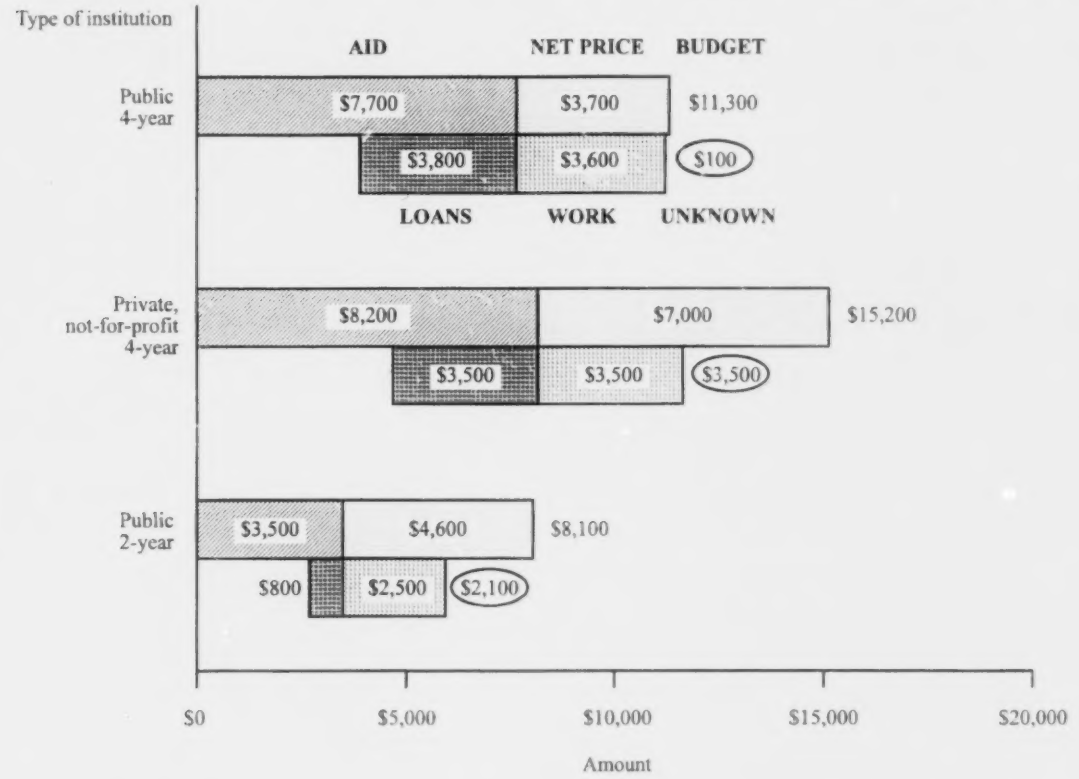


NOTE: Averages computed using zero values. Average loan amounts are included in total aid. Average amount earned while working goes toward but does not meet the net price remaining after aid.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

59 BEST COPY AVAILABLE

Figure 9—Average amounts for selected components of price and sources of funds for independent low-income undergraduates with dependents enrolled full time, full year, by type of institution: 1995–96



NOTE: Averages computed using zero values. Average loan amounts are included in total aid. Average amount earned while working goes toward but does not meet the net price remaining after aid.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

this amount was. Since low-income independent students do not necessarily come from low-income family backgrounds, their parents may have substantial resources.

As indicated in the Introduction, it is impossible to describe completely how low-income students cover the price of attending. In conducting this analysis, the assumption had to be made that the budget determined by the institution closely approximated the price of attending, and this assumptions may not always be correct. In addition, information on scholarships from private sources, employer aid, student earnings, and contributions from families and friends is all student reported through telephone interviews, which allow only a limited time for gathering information. Individuals' recollections of the exact amounts over a period of a year are unavoidably approximate, and therefore they are not asked about them in great detail.

BEST COPY AVAILABLE

Changes Between 1992–93 and 1995–96

Between 1992–93 and 1995–96, tuitions increased, financial aid eligibility criteria changed, and unsubsidized student loans were introduced, all of which affected low-income students. The specific impact of these changes on how low-income students who attend full time, full year finance their education is examined here. Independents with and without dependents were combined in table 16 to make the data for 1992–93 and 1995–96 comparable. This was necessary because of the way in which spouses were treated for the purposes of determining eligibility for financial aid. In 1992–93, spouses were considered dependents; in 1995–96, they were not.

Among low-income students who attended full time, full year, those who attended public 4-year institutions faced higher average tuition charges in 1995–96 than in 1992–93 ($3,400 versus $2,600[16]) (table 16). (At private, not-for-profit 4-year and public 2-year institutions, the apparent increases in average tuition were not statistically significant.) Due to changes in the way that EFC is computed (most notably, dropping the minimum student contribution), the average EFCs for both dependents and independents tended to be lower in 1995–96 than in 1992–93. (The differences for dependents at private, not-for-profit 4-year institutions and independents at public 2-year institutions were not statistically significant.) The net result of changes in tuition, budgets, and EFCs for full-time, full-year low-income students was an increase in average financial need for dependents at public 4-year institutions and independents at all three types of institutions.

Average grant aid (calculated for all full-time, full-year low-income students, including those who did not receive grants) increased for dependent students at public 4-year institutions (from $2,700 to $3,400), but not for any of the other groups of students considered here. Between 1992–93 and 1995–96, the average amount borrowed (calculated for full-time, full-year low-income students, including those who did not borrow) rose for dependents at public 4-year institutions (from $1,400 to $1,800) and independent students at both types of 4-year institutions (from $2,200 to $3,800 at public 4-year institutions and from $2,800 to $4,200 at private, not-for-profit 4-year institutions). The only group for which the percentage who borrowed increased was independents at public 4-year institutions (from 58 percent to 70 percent) (figure 10).

[16]Note that no adjustments for inflation were made in making comparisons between 1992–93 and 1995–96.

Table 16—Average tuition, budget, financial need, financial aid, net price, and earnings while enrolled for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1992–93 and 1995–96

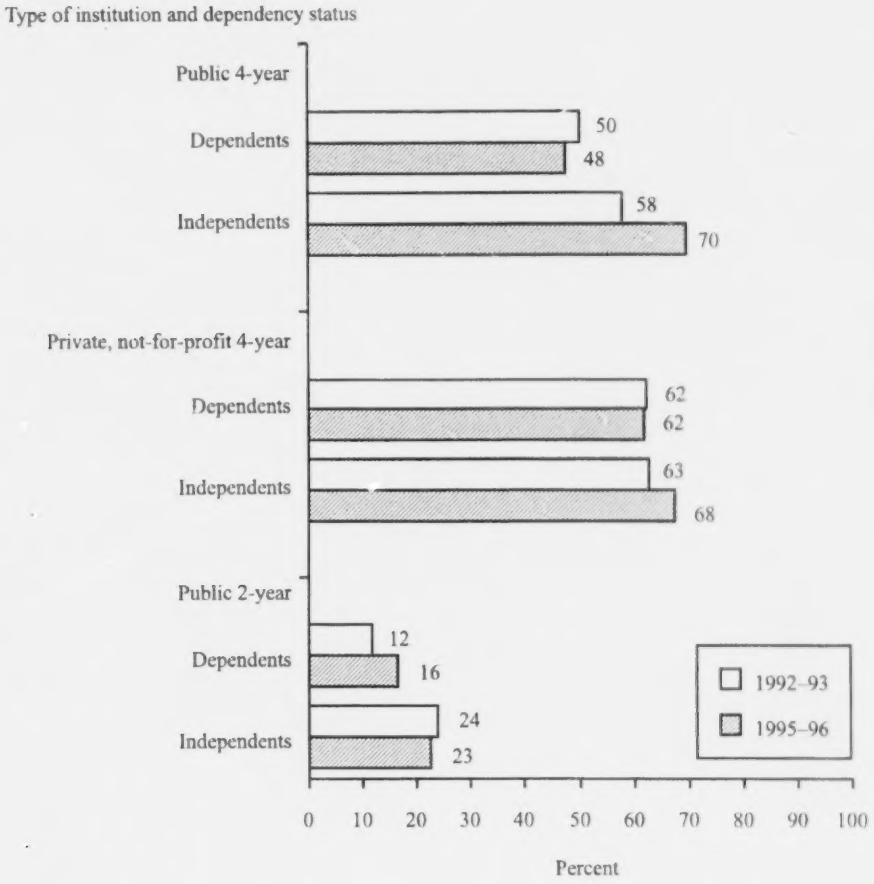
					Financial aid						
	Tuition	Budget	EFC	Financial need	Total	Grants	Loans	Work-study	Other	Net price	Work
					1992–93						
Total*	$3,880	$10,457	$1,607	$8,962	$5,107	$2,940	$1,690	$208	$268	$5,367	$2,902
Type of institution and dependency status											
Public 4-year	2,601	9,551	1,805	7,860	4,918	2,625	1,865	202	226	4,649	3,159
Dependent	2,636	8,924	2,044	7,125	4,514	2,747	1,371	216	181	4,416	2,559
Independent	2,581	9,924	1,662	8,300	5,158	2,552	2,159	194	253	4,787	3,525
Private, not-for-profit 4-year	8,784	15,320	2,148	13,437	8,672	5,433	2,447	379	413	6,662	3,045
Dependent	9,221	15,109	2,140	13,400	9,154	6,255	2,042	456	401	5,961	2,144
Independent	8,407	15,502	2,155	13,468	8,256	4,725	2,796	312	423	7,267	3,893
Public 2-year	1,158	7,125	1,083	6,043	2,881	1,930	550	169	232	4,255	2,597
Dependent	1,177	6,311	1,300	5,011	2,380	1,847	228	245	61	3,931	2,321
Independent	1,153	7,358	1,021	6,340	3,025	1,954	643	148	281	4,348	2,672
					1995–96						
Total*	4,657	11,579	768	10,876	6,116	3,172	2,373	207	364	5,443	2,889
Type of institution and dependency status											
Public 4-year	3,404	10,745	760	10,051	6,256	2,988	2,759	205	303	4,487	3,236
Dependent	3,598	10,300	932	9,488	5,531	3,365	1,767	194	205	4,763	2,593
Independent	3,202	11,209	582	10,637	7,010	2,597	3,791	217	404	4,200	3,711
Private, not-for-profit 4-year	10,486	17,203	1,127	16,264	10,060	5,840	3,245	398	577	7,145	2,801
Dependent	11,494	17,917	1,503	16,703	10,286	6,612	2,615	497	561	7,633	2,187
Independent	8,991	16,144	568	15,614	9,724	4,693	4,178	251	601	6,422	3,553
Public 2-year	1,376	7,659	606	7,051	3,059	1,905	717	164	272	4,598	2,361
Dependent	1,226	6,409	637	5,768	2,447	1,909	327	99	112	3,962	2,745
Independent	1,472	8,453	587	7,867	3,451	1,903	966	206	375	5,003	2,092

*Includes students who attended types of institutions other than those included here.

NOTE: Averages computed using zero values. Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Figure 10—Percentage of independent low-income undergraduates enrolled full time, full year who borrowed through student loan programs, by type of institution and dependency status: 1992–93 and 1995–96



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1995–96 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:96), Undergraduate Data Analysis System.

Still considering only low-income students attending full time, full year, net price (the amounts students have to pay after financial aid is taken into consideration) was significantly different only for independents at public 4-year institutions. For those students, it decreased from $4,800 to $4,200 between 1992–93 and 1995–96, reflecting their increased borrowing. (Apparent changes—generally increases—for other groups were not statistically significant.) The average amounts received from work-study and other sources and the average amounts earned from working while enrolled (calculated across all students) were similar in each of the two years for both dependent and independent students at all three types of institutions.

Persistence Among Low-Income Students

Many worry that low-income students may be forced to drop out or interrupt their education for financial reasons, and there is some empirical evidence for this concern. Among undergraduates who began their postsecondary education in 1995–96, students who were not low income were more likely than their low-income counterparts to have attained or been enrolled in 1998 (71 percent versus 59 percent).

Persistence is affected by a variety of factors other than income. In order to determine whether persistence is associated with low-income status independently of these other factors, a multivariate analysis was conducted using a regression model.[17] The dependent variable was defined as the likelihood of persisting (that is, either attaining a degree or being still enrolled) until 1998. In addition to low-income status, the model included a number of independent variables that describe students' background and enrollment characteristics. They are listed in table 17.

The first column shows the percentages of students who began their postsecondary education in 1995–96 who persisted through 1998. The second column shows the corresponding percentages after being adjusted for the covariation of the independent variables included in the regression equation. Asterisks indicate when a particular group differs significantly from the comparison group (shown in italics).

The results show that even after controlling for student background and factors likely to affect persistence, low-income beginning students still had lower persistence rates than their not-low-income counterparts. The unadjusted persistence rate for low-income and not-low-income students were 59 percent and 71 percent, respectively. After adjustment, 64 percent of low-income and 69 percent of not-low-income students persisted.

The model does not necessarily include all factors that affect persistence. However, of those included in the model, factors associated with lower persistence rates for beginning undergraduates included being black, non-Hispanic (rather than white, non-Hispanic), being financially independent for financial aid purposes (rather than dependent), delaying entry into postsecondary education two years or more after high school, enrolling part time for the entire period (rather than full time), enrolling first in a public 2-year institution (rather than a public 4-year

[17] See appendix C for details on the methods used.

Table 17—Percentage of 1995–96 beginning postsecondary students who attained a degree or were still enrolled in 1998 and the adjusted percentage after controlling for the variables listed in the table

	Unadjusted percentage[1]	Adjusted percentage[2]	Least squares coefficient[3]	Standard error[4]
Total	67.73	67.7	80.05	3.60
Gender				
Female	67.62	67.7	-0.08	1.27
Male	*67.71*	*67.8*	†	†
Race/ethnicity				
Black, non-Hispanic	59.49	62.6*	-5.28	2.01
Hispanic	68.63	70.5	2.69	1.91
Asian	74.74	71.5	3.66	2.87
Native American	56.80	59.5	-8.37	6.71
White, non-Hispanic	*68.50*	*67.8*	†	†
Dependency status 1995–96				
Independents without dependents	46.87*	58.1*	-11.94	2.64
Independents with dependents	49.47*	62.8*	-7.23	2.29
Dependents	*75.09*	*70.0*	†	†
Parents highest education				
High school diploma	63.91	66.5	2.74	2.74
At least some college	75.21*	68.9	5.07	2.76
Less than high school	*58.43*	*63.8*	†	†
Delayed postsecondary enrollment				
Yes	53.67*	63.6*	-6.50	1.77
No	*76.89*	*70.1*	†	†
First institution attended				
Public 2-year	56.36*	62.2*	-10.81	1.75
Public less-than-2-year	57.13*	65.2	-7.80	5.11
Private, not-for-profit 4-year	82.83	72.9	-0.02	2.04
All others	65.04*	71.5	-1.43	2.38
Public 4-year	*81.16*	*73.0*	†	†
Attendance status 1995–96				
Always part-time	41.29*	53.3*	-17.23	1.91
Mixed	69.28	73.1	2.58	1.77
Always full-time	*75.15*	*70.5*	†	†
Worked while enrolled 1998				
1–14 hours	96.35*	76.7	4.58	2.39
15–24 hours	86.09	70.6	-1.50	1.81
25 or more hours	71.81*	61.6*	-10.45	1.57
Did not work	*85.98*	*72.1*	†	†

Table 17—Percentage of 1995–96 beginning postsecondary students who attained a degree or were still enrolled in 1998 and the adjusted percentage after controlling for the variables listed in the table —Continued

	Unadjusted percentage[1]	Adjusted percentage[2]	Least squares coefficient[3]	Standard error[4]
Received student loan 1995–96				
Yes	75.08*	68.3	0.85	1.52
No	*64.48*	*67.5*	†	†
Parents provided loan 1995–96				
Yes	72.48	67.2	-0.63	1.64
No	*68.76*	*67.9*	†	†
Parents provided direct contribution 1995–96				
Yes	77.83*	69.2*	3.58	1.54
No	*59.24*	*65.6*	†	†
Percent of poverty level 1994				
Low income	59.07*	63.7*	-5.23	1.61
Not low income	*70.78*	*69.0*	†	†

*$p \leq .05$.

†Not applicable for the reference group.

[1]The estimates are from the BPS:96/98 Data Analysis System.

[2]The percentages are adjusted for differences associated with other variables in the table (see appendix C).

[3]Least squares coefficient, multiplied by 100 to reflect percentage (see appendix C).

[4]Standard error of least squares coefficient, adjusted for design effect, multiplied by 100 to reflect percentage (see appendix C).

NOTE: The italicized group in each category is the reference group being compared.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 Beginning Postsecondary Students Longitudinal Study Data Analysis System.

institution), and working 25 or more hours per week while enrolled (rather than not working). Beginning students who received direct financial contributions from their parents were more likely to persist than were those not receiving this type of help.

Summary and Conclusions

Students from low-income families typically need substantial financial assistance to attend college. In 1995–96, 26 percent of all undergraduates were low income. Independents with dependents were most likely to be low income (40 percent), followed by independents without dependents (31 percent), and then dependents (17 percent). Among dependent students, low-income status was related to parents' education. Among independent students, however, there was no strong relationship between parents' education and low-income status. Instead, low-income status for independents was closely related to marital status, age, and primary role (as a student or employee). Independent students tended to be low income when they were not married (and therefore did not have a spouse's earnings to add to their family income) and when they were primarily students (and placed a lower priority on working). In addition, the likelihood of being low income decreased with age (as marriage became more likely and earning potential increased if the student was employed).

Virtually all low-income students enrolled full time, full year had financial need (that is, the student budget minus the EFC was greater than zero). The average amounts were substantial, ranging from $5,800 to $16,700, depending on dependency status and type of institution. A large majority of these students (86 percent) received some financial aid (81 percent received grants and 51 percent took out loans). On average, aided low-income students attending full time, full year had about 60 percent of their budgets covered by aid. About 60 percent of their aid was in the form of grants, and 32 percent in the form of loans. The rest came from work-study and "other" types of aid.

Despite the usefulness of the concepts of need and unmet need for financial aid policy purposes, a more relevant number for the student is the net price, which is the difference between the student budget and the amount of financial aid received. This represents the amount that the student must pay in the current year. (Loans must be repaid, but in the future.) A substantial amount of the net price was covered by student earnings while enrolled, and parents do contribute, but gaps remain. The students are enrolled, which means that they are either surviving on a lower budget than estimated by their institution or have other sources of funds. For example, they might actually be earning more than estimated (students often have numerous short-term jobs). They might be able to save from summer earnings, or have savings accumulated before they enrolled. Yet another explanation is that they have received more than estimated from their parents. Or,

they may be borrowing from sources other than student loan programs. Low-income independent students do not necessarily come from low-income backgrounds, so their parents may have substantial resources and help pay.

Low-income students are at greater risk than other students of not completing. After controlling for student background characteristics (gender, race/ethnicity, and parents' education) and other factors thought to affect persistence (dependency status, institution type, enrollment delay after high school, enrollment status, amount worked, borrowing, and assistance from parents), low-income students who began their postsecondary education in 1995–96 were less likely than not-low-income students to have attained a degree or certificate or be still enrolled.

Appendix A—Supplemental Tables

There is no table A.1 or A.2.

Table A.3—Average tuition and fees, student budget, expected family contribution, and financial need for low-income undergraduates and percentage with financial need, by selected characteristics: 1995–96

	Average[1]				
	Tuition and fees[2]	Student budget[3]	Expected family contribution[4] (EFC)	Financial need[5] (Budget-EFC)	Percent with financial need
			All undergraduates		
Total	$2,610	$7,293	$832	$6,763	88.9
Attendance status					
Full-time, full year	4,657	11,579	768	10,876	99.3
Part-time, full-year	1,576	6,764	832	6,089	90.4
Other	1,353	4,248	885	3,476	78.9
Type of institution[6]					
Public 4-year	2,618	8,803	854	8,071	95.3
Private, not-for-profit 4-year	7,823	13,442	1,025	12,595	96.1
Public 2-year	640	4,254	922	3,680	80.4
Private, for-profit	5,300	10,324	408	9,929	99.2
Dependency status for financial aid 1995–96					
Dependent	3,588	8,473	1,012	7,828	92.4
Independents without dependents	2,490	7,189	931	6,519	87.2
Independents with dependents	1,885	6,384	598	6,067	87.4
			Part-time, full-year undergraduates[6]		
Total[7]	$1,576	$6,764	$832	$6,089	90.4
Type of institution and dependency status					
Public 4-year	2,332	8,936	854	8,177	96.4
Dependents	3,011	9,754	1,091	8,759	97.2
Independents without dependents	2,384	8,960	962	8,054	97.4
Independents with dependents	1,827	8,379	560	7,964	94.6
Private, not-for-profit 4-year	4,752	10,048	875	9,268	96.4
Dependents	4,959	9,828	1,176	8,752	99.6
Independents without dependents	5,191	10,911	868	10,057	97.7
Independents with dependents	4,079	9,184	662	8,711	92.6

Table A.3—Average tuition and fees, student budget, expected family contribution, and financial need for low-income undergraduates and percentage with financial need, by selected characteristics: 1995–96—Continued

	Average[1]				
	Tuition and fees[2]	Student budget[3]	Expected family contribution[4] (EFC)	Financial need[5] (Budget-EFC)	Percent with financial need
Public 2-year	$683	$5,253	$829	$4,622	86.8
Dependents	674	5,350	986	4,550	89.4
Independents without dependents	550	4,607	985	3,831	77.9
Independents with dependents	767	5,582	651	5,129	90.5

[1]Averages computed including zero values.

[2]Tuition and fees charged to the student, excluding those who attended more than one institution.

[3]Student budget calculated by the institution, excluding those who attended more than one institution. Adjusted for attendance status.

[4]Amount family expected to pay.

[5]Student budget minus expected family contribution. In this table, the difference between the average student budget and the average expected family contribution is not exactly equal to the average financial need because of missing data for each variable.

[6]Limited to students who attended only one institution.

[7]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.4—Percentage of low-income undergraduates who applied for and received financial aid, by type of aid and selected characteristics: 1995–96

			Type of aid				
	Applied for aid	Any aid	Grants	Pell grant[1]	Loans	Work study	Other[2]
			All undergraduates				
Total	74.1	67.4	61.8	52.9	32.7	6.9	7.6
Attendance status							
Full-time, full-year	88.8	86.2	80.9	71.5	50.9	14.8	10.2
Part-time, full-year	70.1	62.8	57.6	48.2	24.5	4.9	6.1
Other	64.8	55.3	49.3	40.7	22.9	1.9	6.4
Type of institution[3]							
Public 4-year	80.4	73.7	67.8	60.1	48.5	9.1	7.4
Private, not-for-profit 4-year	86.1	81.1	75.7	59.4	51.8	20.0	10.7
Public 2-year	61.2	52.6	48.2	38.6	9.8	4.0	6.0
Private, for profit	90.7	86.0	77.9	74.0	57.6	0.6	8.8
Dependency status for financial aid 1995–96							
Dependent	77.6	68.5	64.3	54.5	34.1	11.1	6.2
Independent without dependents	69.6	63.2	54.0	45.0	35.6	5.0	9.2
Independent with dependents	75.0	70.1	66.3	58.2	29.2	5.0	7.3
			Part-time, full-year undergraduates[3]				
Total[4]	70.1	62.8	57.6	48.2	24.5	4.9	6.1
Type of institution and dependency status							
Public 4-year	76.4	67.9	61.5	54.6	46.7	6.1	5.1
Dependents	79.7	66.5	63.2	56.7	44.6	10.5	1.4
Independents without dependents	72.2	61.6	52.1	44.5	44.5	5.3	5.6
Independents with dependents	79.8	77.1	72.6	66.6	51.0	4.4	6.7
Private, not-for-profit 4-year	77.4	74.6	65.9	46.9	35.8	7.2	10.3
Dependents	85.2	81.0	74.1	58.2	46.6	13.1	5.5
Independents without dependents	67.4	63.3	50.1	31.2	29.5	3.4	14.0
Independents with dependents	83.5	83.5	78.6	57.3	35.4	7.3	9.5
Public 2-year	66.0	58.1	54.1	44.7	12.9	4.5	5.9
Dependents	60.7	42.8	40.5	30.2	5.0	3.1	2.6
Independents without dependents	57.6	51.7	43.2	33.2	11.1	2.6	9.6
Independents with dependents	73.9	70.4	68.0	59.5	18.3	6.4	5.5

[1]Included in grants.

[2]All other types of aid, such as assistantships, veterans benefits and military tuition aid, vocational rehabilitation, and JTPA.

[3]Limited to students who attended only one institution.

[4]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.5—Average amount of aid received by low-income undergraduates, by type of aid and selected characteristics: 1995–96

	Average for low-income students with each type of aid[1]					Average for all low-income students[2]				
	Total aid	Grants	Loans	Work study	Other[3]	Total aid	Grants	Loans	Work study	Other[3]
					All undergraduates					
Total	$4,958	$2,698	$4,185	$1,417	$2,717	$3,342	$1,668	$1,370	$98	$206
Attendance status										
Full-time, full-year	7,097	3,922	4,663	1,397	3,588	6,116	3,172	2,373	207	364
Part-time, full-year	3,829	2,074	4,172	1,558	1,816	2,403	1,195	1,021	77	111
Other	3,021	1,505	3,362	1,364	2,080	1,672	741	770	26	134
Type of institution[4]										
Public 4-year	6,248	3,082	4,457	1,497	2,980	4,607	2,090	2,161	136	220
Private, not-for-profit 4-year	9,096	5,479	4,859	1,311	4,223	7,377	4,147	2,515	263	452
Public 2-year	2,386	1,650	3,092	1,400	1,690	1,254	796	302	56	101
Private, for profit	4,816	1,994	3,949	—	3,465	4,142	1,552	2,276	8	307
Dependency status for financial aid 1995–96										
Dependent	5,794	3,765	3,493	1,312	3,341	3,966	2,422	1,190	146	208
Independent without dependents	5,241	2,231	4,940	1,512	2,947	3,311	1,204	1,760	76	272
Independent with dependents	4,058	2,149	4,090	1,536	2,027	2,843	1,425	1,194	76	148
					Part-time, full-year undergraduates[4]					
Total[5]	$3,829	$2,074	$4,172	$1,558	$1,816	$2,403	$1,195	$1,021	$77	$111
Type of institution and dependency status										
Public 4-year	5,766	2,380	4,739	1,585	2,847	3,916	1,463	2,212	97	144
Dependents	6,036	3,190	3,873	—	—	4,016	2,017	1,727	157	115
Independents without dependents	5,436	1,786	4,865	—	—	3,350	931	2,163	81	175
Independents with dependents	5,965	2,489	5,081	—	—	4,597	1,808	2,589	79	121
Private, not-for-profit 4-year	5,999	3,377	5,128	1,055	3,297	4,477	2,225	1,836	76	340
Dependents	5,770	3,905	3,265	—	—	4,671	2,893	1,521	96	161
Independents without dependents	6,672	3,484	6,689	—	—	4,221	1,747	1,971	28	476
Independents with dependents	5,557	2,931	5,385	—	—	4,638	2,303	1,906	118	311

Table A.5—Average amount of aid received by low-income undergraduates, by type of aid and selected characteristics: 1995–96—Continued

	Average for low-income students with each type of aid[1]					Average for all low-income students[2]				
	Total aid	Grants	Loans	Work study	Other[3]	Total aid	Grants	Loans	Work study	Other[3]
Public 2-year	$2,520	$1,722	$3,088	$1,658	$1,049	$1,465	$931	$398	$74	$62
Dependents	1,789	1,582	—	—	—	766	640	90	26	9
Independents without dependents	2,362	1,421	—	—	—	1,220	613	420	37	150
Independents with dependents	2,832	1,881	3,029	—	—	1,994	1,279	534	123	38

—Too few cases for a reliable estimate.

[1]See table 4 for percentage of low-income undergraduates receiving each type of aid.

[2]Includes unaided low-income students. Average total aid is not equal to the sum of grants, loans, and work study because of missing data for each variable.

[3]All other types of aid, such as assistantships, veterans benefits and military tuition aid, vocational rehabilitation, and JTPA.

[4]Limited to students who attended only one institution.

[5]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.6—Percentage distribution of undergraduates according to amount borrowed through the Stafford loan program, by income status and selected characteristics: 1995–96

	Low-income			Not-low-income		
	None	Less than maximum	Maximum	None	Less than maximum	Maximum
			All undergraduates			
Total	68.8	24.4	6.8	77.7	13.1	9.3
Attendance status						
Full-time, full-year	51.6	34.1	14.4	61.4	19.0	19.6
Part-time, full-year	76.6	20.4	3.0	87.0	9.7	3.4
Other	78.3	18.8	2.9	87.1	9.7	3.3
Type of institution[1]						
Public 4-year	53.1	39.0	7.9	69.4	18.9	11.7
Private, not-for-profit 4-year	50.8	30.1	19.1	58.4	17.8	23.8
Public 2-year	91.1	7.4	1.6	95.2	3.6	1.2
Private, for-profit	45.5	42.6	11.9	47.6	34.7	17.8
Dependency status for financial aid 1995–96						
Dependents	67.9	18.0	14.1	71.1	13.9	15.0
Independents without dependents	65.8	29.4	4.8	86.7	11.2	2.1
Independents with dependents	72.2	25.5	2.3	84.8	13.2	2.0
			Part-time, full-year undergraduates[1]			
Total[2]	76.6	20.4	3.0	87.0	9.7	3.4
Type of institution and dependency status						
Public 4-year	54.9	40.8	4.3	77.0	18.1	4.9
Dependents	57.7	30.9	11.5	73.8	17.5	8.7
Independents without dependents	56.9	40.1	3.0	79.0	19.1	1.9
Independents with dependents	50.5	48.1	1.4	80.9	17.8	1.2
Private, not-for-profit 4-year	67.8	24.3	8.0	74.1	17.2	8.8
Dependents	60.6	22.4	17.0	67.7	13.5	18.8
Independents without dependents	71.9	21.7	6.4	77.9	17.1	5.0
Independents with dependents	68.1	28.7	3.2	76.0	20.4	3.7
Public 2-year	87.7	10.9	1.4	94.6	3.9	1.5
Dependents	96.0	4.0	0.0	93.3	3.4	3.3
Independents without dependents	88.9	8.1	3.1	95.8	3.8	0.4
Independents with dependents	82.5	16.3	1.2	94.4	4.7	0.8

[1]Limited to students who attended only one institution.

[2]Includes students who attended types of institutions other than those included here.

NOTE: Percentages may not sum to 100 due to rounding. Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.7—Average amount borrowed in unsubsidized and total Stafford loans, by income status and selected characteristics: 1995–96

	Low-income				Not-low-income			
	Stafford unsubsidized		All Stafford loans		Stafford unsubsidized		All Stafford loans	
	Students with loans	All students	Students with loans	All students	Students with loans	All students	Students with loans	All students
	All undergraduates							
Total	$2,843	$321	$4,083	$1,273	$2,960	$283	$3,841	$857
Attendance status								
Full-time, full year	3,140	530	4,502	2,181	3,119	475	4,009	1,546
Part-time, full-year	2,843	222	4,139	968	3,002	189	3,993	521
Other	2,399	210	3,326	723	2,550	159	3,320	429
Type of institution[1]								
Public 4-year	2,753	383	4,280	2,008	2,966	397	3,874	1,186
Private, not-for-profit 4-year	3,397	544	4,641	2,286	3,242	430	4,130	1,719
Public 2-year	2,730	83	3,245	290	2,278	52	2,627	126
Private, for-profit	2,856	868	3,900	2,126	3,032	1,039	4,184	2,194
Dependency status for financial aid 1995–96								
Dependents	2,862	113	3,268	1,050	2,760	287	3,485	1,006
Independents without dependents	2,946	520	4,877	1,669	3,422	299	4,947	657
Independents with dependents	2,711	327	4,053	1,128	3,058	252	4,535	688
	Part-time, full-year undergraduates[1]							
Total[2]	$2,843	$222	$4,139	$968	$3,002	$189	$3,993	$521
Type of institution and dependency status								
Public 4-year	2,905	403	4,603	2,075	3,082	287	4,019	923
Dependents	—	110	3,614	1,529	2,733	265	3,480	912
Independents without dependents	2,737	501	4,810	2,073	3,572	393	4,784	1,005
Independents with dependents	—	463	4,910	2,429	2,924	174	4,321	823
Private, not-for-profit 4-year	3,600	459	5,314	1,713	3,650	486	5,295	1,371
Dependents	—	144	3,471	1,369	3,416	348	4,489	1,449
Independents without dependents	3,708	704	6,814	1,914	3,851	604	6,030	1,332
Independents with dependents	—	400	5,420	1,727	3,578	493	5,581	1,342
Public 2-year	2,489	87	3,156	387	2,505	72	2,854	155
Dependents	—	0	—	79	—	86	2,278	152
Independents without dependents	—	128	—	420	—	47	—	106
Independents with dependents	—	111	3,069	536	—	88	—	225

—Too few cases for a reliable estimate.

[1]Limited to students who attended only one institution.

[2]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.8—Percentage of low-income undergraduates who received aid and average amount received, by source of aid and selected characteristics: 1995–96

	Source of aid			Average for low-income students with each type of aid[1]			Average for all low-income students[2]		
	Any federal aid	Any state aid	Any institutional aid	Federal aid	State aid	Institutional aid	Federal aid	State aid	Institutional aid
				All undergraduates					
Total	58.1	18.7	18.8	$4,192	$1,617	$2,133	$2,437	$303	$400
Attendance status									
Full-time, full-year	78.6	31.1	29.7	5,353	2,001	3,119	4,206	623	926
Part-time, full-year	51.8	16.4	17.6	3,739	1,083	932	1,936	177	164
Other	45.4	10.8	11.3	2,909	1,153	976	1,322	125	110
Type of institution[3]									
Public 4-year	67.1	25.1	20.3	5,177	1,790	2,156	3,475	449	437
Private, not-for-profit 4-year	68.4	33.9	41.3	6,150	2,188	4,684	4,205	741	1,933
Public 2-year	40.8	12.9	13.8	2,416	810	430	986	105	59
Private, for profit	81.1	12.1	11.2	4,325	2,366	1,603	3,506	285	180
Dependency status for financial aid 1995–96									
Dependent[2]	60.3	21.9	24.6	4,215	1,954	3,319	2,540	428	816
Independent without dependents[2]	53.5	15.6	17.2	4,670	1,712	1,617	2,498	267	278
Independent with dependents[2]	60.3	18.7	15.1	3,818	1,220	1,009	2,300	228	153
				Part-time, full-year undergraduates[3]					
Total[4]	51.8	16.4	17.6	$3,739	$1,083	$932	$1,936	$177	$164
Type of institution and dependency status									
Public 4-year	61.8	16.5	14.5	5,316	1,409	1,510	3,287	232	218
Dependents	60.5	20.3	17.3	5,065	2,027	2,400	3,065	411	416
Independents without dependents	56.0	13.8	10.6	5,108	1,230	1,312	2,858	169	139
Independents with dependents	70.4	17.6	17.7	5,674	1,136	—	3,994	200	196
Private, not-for-profit 4-year	56.4	28.4	29.1	5,095	1,734	2,830	2,875	493	824
Dependents	73.7	38.7	29.2	4,043	1,593	—	2,980	617	888
Independents without dependents	40.8	22.7	32.5	6,340	1,760	3,348	2,589	400	1,090
Independents with dependents	62.2	27.7	25.0	5,041	1,854	1,849	3,138	513	461

Table A.8—Percentage of low-income undergraduates who received aid and average amount received, by source of aid and selected characteristics: 1995–96—Continued

	Source of aid			Average for low-income students with each type of aid[1]			Average for all low-income students[2]		
	Any federal aid	Any state aid	Any institutional aid	Federal aid	State aid	Institutional aid	Federal aid	State aid	Institutional aid
Public 2-year	45.8	15.2	17.8	$2,649	$755	$322	$1,214	$114	$57
Dependents	31.6	9.5	17.0	1,942	—	—	613	83	57
Independents without dependents	34.9	8.8	18.9	2,684	—	—	938	76	55
Independents with dependents	60.1	22.1	17.7	2,841	698	336	1,707	154	59

—Too few cases for a reliable estimate.

[1]See table 4 for percentage of low-income undergraduates receiving each type of aid.

[2]Includes unaided low-income students.

[3]Limited to students who attended only one institution.

[4]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.9—Total aid as a percentage of the student budget and grants, loans, and federal aid as percentages of total aid for low-income undergraduates, by selected characteristics: 1995–96

	Total aid as percent of student budget		Average percent of total aid[1]		
	All students	Aided students	Grants	Loans	Federal aid
			All undergraduates		
Total	35.3	53.6	62.7	28.9	72.4
Attendance status					
Full-time, full-year	52.0	60.4	59.6	32.2	71.9
Part-time, full-year	30.4	48.4	67.0	24.5	72.3
Other	23.1	46.4	63.9	27.4	72.4
Type of institution[2]					
Public 4-year	47.6	64.3	53.2	39.6	73.7
Private, not-for-profit 4-year	49.9	61.5	60.5	30.5	60.7
Public 2-year	23.1	44.0	78.5	11.4	67.9
Private, for profit	40.3	46.1	50.1	44.0	85.4
Dependency status for financial aid 1995–96					
Dependent	38.6	57.6	68.2	25.0	70.1
Independent without dependents	33.1	53.9	50.2	38.8	71.1
Independent with dependents	34.5	50.0	67.6	24.7	75.2
			Part-time, full-year undergraduates[2]		
Total[3]	30.4	48.4	67.0	24.5	72.3
Type of institution and dependency status					
Public 4-year	41.0	60.4	49.1	45.3	79.6
Dependents	39.5	59.3	58.3	36.5	75.8
Independents without dependents	34.6	56.1	42.4	51.7	80.1
Independents with dependents	50.5	65.5	50.9	43.4	81.0
Private, not-for-profit 4-year	39.9	53.5	61.7	28.0	60.2
Dependents	43.2	53.4	69.2	26.9	74.3
Independents without dependents	33.4	52.7	51.5	31.3	49.1
Independents with dependents	45.4	54.3	65.6	25.8	60.2
Public 2-year	24.9	42.8	77.1	13.1	70.1
Dependents	17.7	41.5	87.4	7.8	64.9
Independents without dependents	20.1	38.7	65.7	15.2	59.1
Independents with dependents	31.7	45.0	78.7	14.0	76.5

[1]For students with aid (67 percent of all and 63 percent of part-time, full-year, low-income undergraduates).

[2]Limited to students who attended only one institution.

[3]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.10—Average budget, EFC, financial need, aid, unmet need, and net price for low income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96

	Student budget	Expected family contribution (EFC)	Financial need[1]	Total aid	Unmet need[2]	Net price[3]
			All undergraduates			
Total	$7,293	$832	$6,763	$3,342	$3,488	$4,073
Attendance status						
Full-time, full year	11,579	768	10,876	6,116	4,844	5,443
Part-time, full-year	6,764	832	6,089	2,403	3,705	4,355
Other	4,248	885	3,476	1,672	2,175	2,712
Type of institution[4]						
Public 4-year	8,803	854	8,071	4,607	3,525	4,173
Private, not-for-profit 4-year	13,442	1,025	12,595	7,377	5,343	6,068
Public 2-year	4,254	922	3,680	1,254	2,450	2,996
Private, for-profit	10,324	408	9,929	4,142	5,683	6,045
Dependency status for financial aid 1995–96						
Dependent	8,473	1,012	7,828	3,966	3,908	4,663
Independents without dependents	7,189	931	6,519	3,311	3,352	4,054
Independents with dependents	6,384	598	6,067	2,843	3,247	3,588
			Part-time, full-year undergraduates[4]			
Total[5]	$6,764	$832	$6,089	$2,403	$3,705	$4,355
Type of institution and dependency status						
Public 4-year	8,936	854	8,177	3,916	4,321	5,020
Dependents	9,754	1,091	8,759	4,016	4,802	5,737
Independents without dependents	8,960	962	8,054	3,350	4,784	5,610
Independents with dependents	8,379	560	7,964	4,597	3,404	3,782
Private, not-for-profit 4-year	10,048	875	9,268	4,477	4,847	5,571
Dependents	9,828	1,176	8,752	4,671	4,122	5,157
Independents without dependents	10,911	868	10,057	4,221	5,928	6,689
Independents with dependents	9,184	662	8,711	4,638	4,095	4,546
Public 2-year	5,253	829	4,622	1,465	3,160	3,786
Dependents	5,350	986	4,550	766	3,797	4,584
Independents without dependents	4,607	985	3,831	1,220	2,607	3,381
Independents with dependents	5,582	651	5,129	1,994	3,139	3,588

[1]Student budget minus EFC.

[2]Student budget minus EFC minus aid.

[3]Student budget minus all aid.

[4]Limited to students who attended only one institution.

[5]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution, section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.11—Percentage distribution of low-income undergraduates according to amount of unmet need, by selected characteristics: 1995–96

	None	$1 to 999	$1,000 to 2,999	$3,000 to 4,999	$5,000 to 9,999	$10,000 or more
			All undergraduates			
Total	20.4	12.1	21.4	19.8	20.9	5.5
Attendance status						
Full-time, full year	12.7	8.7	20.1	17.7	30.1	10.6
Part-time, full-year	18.0	9.6	16.4	26.7	24.9	4.4
Other	28.2	16.4	25.4	18.0	10.5	1.5
Type of institution[1]						
Public 4-year	20.3	13.2	20.3	17.7	22.7	5.9
Private, not-for-profit 4-year	15.2	8.2	19.5	19.0	23.0	15.2
Public 2-year	25.7	14.4	24.0	20.3	14.5	1.1
Private, for-profit	4.7	4.2	16.1	23.2	39.6	12.3
Dependency status for financial aid 1995–96						
Dependent	16.3	10.1	24.3	21.7	20.3	7.3
Independents without dependents	24.4	12.5	18.6	17.9	21.1	5.5
Independents with dependents	20.4	13.4	21.4	19.8	21.1	3.9
			Part-time, full-year undergraduates[1]			
Total[2]	18.0	9.6	16.4	26.7	24.9	4.4
Type of institution and dependency status						
Public 4-year	16.6	10.5	15.7	18.4	30.5	8.3
Dependent	16.2	6.1	14.3	17.8	38.0	7.6
Independents without dependents	14.8	7.9	14.4	18.4	33.9	10.6
Independents with dependents	19.3	16.7	18.2	18.7	21.4	5.8
Private, not-for-profit 4-year	15.1	5.9	16.8	24.6	25.2	12.5
Dependent	11.5	5.6	27.6	29.0	16.4	10.0
Independents without dependents	12.2	6.1	10.1	21.0	31.2	19.5
Independents with dependents	21.3	5.9	16.7	25.5	24.5	6.1
Public 2-year	19.9	10.2	17.0	30.6	20.8	1.5
Dependent	15.7	4.6	16.3	37.2	22.6	3.7
Independents without dependents	27.7	13.4	15.2	26.2	16.1	1.5
Independents with dependents	17.5	11.5	18.4	29.7	22.6	0.3

[1]Limited to students who attended only one institution.

[2]Includes students who attended types of institutions other than those included here.

NOTE: Percentages may not sum to 100 due to rounding. Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.12—Percentage of undergraduates whose parents expected them to work, percentage who worked, average hours worked, and average earnings, by income status, type of institution, and attendance status: 1995–96

	Low-income					Not-low-income				
	Percentage whose parents expected them to work	Percentage who worked	Average hours worked per week while enrolled[1]	Average earnings while enrolled		Percentage whose parents expected them to work	Percentage who worked	Average hours worked per week while enrolled[1]	Average earnings while enrolled	
				Students who worked	All students				Students who worked	All students
					All undergraduates					
Total	54.1	71.8	27.9	$6,122	$3,772	54.7	81.0	30.9	$11,793	$8,932
Attendance status										
Full-time, full year	50.1	67.8	22.6	4,820	2,889	48.0	73.6	23.0	6,182	4,217
Part-time, full-year	61.2	75.4	30.2	7,488	4,840	69.0	89.2	35.8	17,580	15,157
Other	57.4	74.0	31.0	6,728	4,219	61.6	83.3	34.7	13,076	10,145
Type of institution[2]										
Public 4-year	48.6	73.4	24.4	5,595	3,678	47.1	76.4	26.9	9,313	6,583
Private, not-for-profit 4-year	53.1	77.2	24.8	5,066	3,388	43.8	78.0	26.5	11,860	8,521
Public 2-year	61.1	74.8	31.0	7,241	4,640	68.9	86.2	35.0	13,557	11,107
Private, for-profit	50.2	53.6	30.3	5,564	2,313	62.5	70.9	32.9	12,153	7,601
Dependency status for financial aid 1995–96										
Dependents	54.1	72.8	23.7	4,359	2,729	54.7	78.6	25.2	5,203	3,804
Independents	54.4	71.4	29.8	6,898	4,219	59.9	83.9	37.5	19,461	15,328
					Part-time, full-year undergraduates[2]					
Total[3]	61.2	75.4	30.2	$7,488	$4,840	69.0	89.2	35.8	$17,580	$15,157
Type of institution										
Public 4-year	52.3	77.3	27.7	7,378	5,116	55.0	85.8	32.0	15,802	12,986
Dependents	46.4	76.3	23.6	4,917	3,407	55.5	83.3	26.1	6,801	5,365
Independents without dependents	(*)	84.1	26.0	7,312	5,735	(*)	87.7	35.6	20,808	17,498
Independents with dependents	(*)	68.7	33.1	9,383	5,340	(*)	88.2	38.2	24,984	21,460
Private, not-for-profit 4-year	69.2	84.5	31.8	8,578	6,281	52.5	92.8	38.5	26,576	23,895
Dependents	—	69.9	27.5	—	3,364	52.2	85.7	26.8	6,660	5,359
Independents without dependents	(*)	91.1	32.5	7,346	5,867	(*)	94.4	41.7	29,944	27,533
Independents with dependents	(*)	86.0	33.4	—	8,368	(*)	95.8	42.2	34,761	32,763
Public 2-year	63.7	73.9	30.6	7,120	4,427	79.5	90.0	36.8	16,775	14,674
Dependents	66.2	75.6	30.3	6,918	4,703	79.5	92.1	33.5	8,340	7,543
Independents without dependents	(*)	67.7	33.4	—	3,226	(*)	89.1	37.6	18,034	15,314
Independents with dependents	(*)	77.3	29.2	7,122	4,914	(*)	89.1	39.5	25,337	22,171

—Too few cases for a reliable estimate.

*Not applicable.

[1]For those who worked.

[2]Limited to students who attended only one institution.

[3]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.13—Percentage of undergraduates whose parents made direct contributions, percentage who received an allowance from their parents, and average allowance, by income status and selected characteristics: 1995–96

	Low-income				Not-low-income			
	Direct contribution[1]	Allowance	Average allowance for year (if received)	Average allowance for year (all students)	Direct contribution[1]	Allowance	Average allowance for year (if received)	Average allowance for year (all students)
				All undergraduates				
Total	32.6	16.7	$1,755	$229	56.2	24.1	$2,353	$512
Attendance status								
Full-time, full year	35.3	20.3	2,078	326	70.4	33.1	2,479	748
Part-time, full-year	31.2	13.0	1,308	139	41.2	13.6	2,546	315
Other	31.1	14.6	1,486	172	44.2	17.1	1,907	292
Type of institution[2]								
Public 4-year	36.0	20.2	1,950	324	63.2	32.5	2,558	770
Private, not-for-profit 4-year	42.9	26.1	2,015	363	78.5	34.5	2,474	767
Public 2-year	30.2	11.3	1,011	100	41.8	12.6	1,686	187
Private, for-profit	19.3	12.7	2,335	181	35.9	12.6	2,377	236
Dependency status for financial aid 1995–96								
Dependents	48.3	27.6	1,550	331	71.2	31.0	2,256	636
Independents[3]	23.1	9.6	2,098	166	13.0	4.1	4,410	163
				Part-time, full-year undergraduates[2]				
Total[4]	31.2	13.0	$1,308	$139	41.2	13.6	$2,546	$315
Type of institution and dependency status								
Public 4-year	36.2	15.0	1,691	220	55.1	24.0	2,700	594
Dependents	49.3	18.9	—	206	72.6	33.4	2,607	806
Independents[3]	31.3	13.6	—	225	19.3	4.4	—	169
Private, not-for-profit 4-year	38.5	22.2	1,639	162	49.4	20.1	2,213	379
Dependents	63.7	38.0	—	196	78.6	29.1	2,467	609
Independents[3]	26.5	11.6	—	145	16.0	9.4	—	120
Public 2-year	28.8	10.4	851	83	34.7	8.4	2,289	177
Dependents	47.8	16.0	—	107	57.4	15.4	2,387	340
Independents[3]	16.0	6.6	—	67	10.5	0.9	—	5

—Too few cases for a reliable estimate.

[1]Parents contributed toward tuition, housing, meals, or books.

[2]Limited to students who attended only one institution.

[3]Limited to students less than 30 years old with parents.

[4]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.14—Percentage distribution of undergraduates according to the level of other types of support received from their parents, by income status and selected characteristics: 1995–96

	Low-income			Not-low-income		
	No support	$1,000 or less	More than $1,000	No support	$1,000 or less	More than $1,000
			All undergraduates			
Total	60.6	21.2	18.2	42.4	24.1	33.6
Attendance status						
Full-time, full year	52.4	26.3	21.3	29.0	29.2	41.8
Part-time, full-year	67.2	16.8	16.1	53.8	19.0	27.1
Other	65.7	18.1	16.2	54.9	19.6	25.5
Type of institution[1]						
Public 4-year	54.2	22.1	23.7	34.4	26.8	38.9
Private, not-for-profit 4-year	53.7	26.0	20.2	31.7	29.8	38.5
Public 2-year	66.3	20.3	13.4	52.4	20.1	27.4
Private, for-profit	71.4	16.2	12.4	62.8	14.6	22.6
Dependency status for financial aid 1995–96						
Dependents	45.4	28.5	26.1	25.6	30.0	43.4
Independents[2]	69.8	16.7	13.4	86.6	7.3	6.1
			Part-time, full-year undergraduates[1]			
Total[3]	67.2	16.8	16.1	53.8	19.0	27.1
Type of institution and dependency status						
Public 4-year	61.8	19.6	18.5	41.2	21.2	37.6
Dependents	42.9	21.3	35.8	24.0	26.3	49.7
Independents[2]	69.0	19.0	12.0	76.4	10.9	12.7
Private, not-for-profit 4-year	62.1	12.9	25.0	62.5	11.9	25.6
Dependents	50.2	27.3	22.5	34.5	20.1	45.4
Independents[2]	67.9	6.0	26.2	93.3	2.8	4.0
Public 2-year	69.3	16.4	14.3	57.6	19.4	23.1
Dependents	45.5	32.6	22.0	31.2	29.1	39.7
Independents[2]	85.5	5.4	9.1	85.1	9.2	5.7

[1]Limited to students who attended only one institution.

[2]Limited to students less than 30 years old with parents.

[3]Includes students who attended types of institutions other than those included here.

NOTE: Other types of support refers to support from parents other than tuition, room and board, books and supplies, or an allowance. Percentages may not sum to 100 because of rounding. Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.15—Percentage of undergraduates who borrowed money from their parents that they expected to repay and average amount borrowed, by income status and selected characteristics: 1995–96

	Low-income			Not-low-income		
	Percent who borrowed	Average amount borrowed (if borrowed)	Average amount borrowed (all students)	Percent who borrowed	Average amount borrowed (if borrowed)	Average amount borrowed (all students)
			All undergraduates			
Total	16.6	$2,070	$344	20.4	$3,356	$686
Attendance status						
Full-time, full year	18.9	2,784	527	22.2	4,367	969
Part-time, full-year	15.0	1,387	208	18.0	2,106	378
Other	15.1	1,440	217	19.4	2,387	463
Type of institution[1]						
Public 4-year	17.6	2,718	479	22.6	3,772	853
Private, not-for-profit 4-year	14.2	4,561	649	19.9	7,706	1,532
Public 2-year	17.4	738	128	18.9	1,147	217
Private, for-profit	13.3	1,841	244	17.6	3,188	559
Dependency status for financial aid 1995–96						
Dependents	20.2	2,431	491	24.9	3,460	863
Independents[2]	14.3	1,745	250	7.9	2,436	192
			Part-time, full-year undergraduates[1]			
Total[3]	15.0	$1,387	$208	18.0	$2,106	$378
Type of institution and dependency status						
Public 4-year	12.0	2,831	341	20.1	3,289	661
Dependents	19.5	—	576	27.6	3,415	943
Independents[2]	9.2	—	252	4.8	—	86
Private, not-for-profit 4-year	8.9	2,672	238	15.4	5,900	911
Dependents	9.5	—	142	27.0	6,287	1,695
Independents[2]	8.6	—	295	3.0	—	66
Public 2-year	17.7	561	99	17.6	1,135	199
Dependents	20.6	—	93	26.7	1,230	329
Independents[2]	15.6	—	103	8.1	—	66

—Too few cases for a reliable estimate.

[1]Limited to students who attended only one institution.

[2]Limited to students less than 30 years old with parents.

[3]Includes students who attended types of institutions other than those included here.

NOTE: Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.16a—Average tuition, budget, financial need, financial aid, net price, and earnings while enrolled for low-income undergraduates, by selected characteristics: 1992–93

					Financial aid						
	Tuition	Budget	EFC	Financial need	Total	Grants	Loans	Work-study	Other	Net price	Work
					All undergraduates						
Total	$2,463	$7,365	$1,414	$6,144	$3,218	$1,820	$1,136	$113	$150	$4,177	$4,171
Attendance status											
Full-time, full year	3,880	10,457	1,607	8,962	5,107	2,940	1,690	208	268	5,367	2,902
Part-time, full-year	1,587	7,045	1,331	5,822	2,401	1,396	824	105	75	4,668	5,408
Other	1,712	5,027	1,310	4,030	2,119	1,158	826	45	90	3,003	4,623
Type of institution[1]											
Public 4-year	2,037	7,970	1,703	6,427	3,863	2,013	1,527	146	177	4,110	4,056
Private, not-for-profit 4-year	6,317	11,767	1,790	10,234	6,372	3,937	1,890	262	283	5,416	4,040
Public 2-year	656	4,697	1,256	3,661	1,582	1,040	388	78	75	3,127	4,721
Private, for-profit	4,516	9,180	1,010	8,230	3,557	1,708	1,651	42	156	5,722	3,033
Dependency status for financial aid											
Dependents	2,957	7,904	2,000	6,230	3,783	2,326	1,107	160	189	4,143	3,440
Independents	2,290	7,177	1,207	6,114	3,018	1,640	1,146	97	136	4,189	4,435
					Part-time, full-year undergraduates[1]						
Total[2]	$1,587	$7,045	$1,331	$5,822	$2,401	$1,396	$824	$105	$75	$4,668	$5,408
Type of institution and dependency status											
Public 4-year	1,711	8,176	1,597	6,672	3,383	1,691	1,465	119	108	4,790	5,146
Dependents	1,969	8,213	2,049	6,248	3,434	1,945	1,168	186	134	4,725	3,837
Independents	1,629	8,164	1,448	6,809	3,366	1,607	1,563	96	99	4,811	5,580
Private, not-for-profit 4-year	4,006	9,291	1,225	8,116	4,130	2,309	1,449	185	187	5,234	6,573
Dependents	4,347	9,101	1,645	7,543	5,155	3,319	1,466	224	146	3,967	6,807
Independents	3,897	9,351	1,090	8,299	3,801	1,985	1,444	173	200	5,639	6,499
Public 2-year	671	5,592	1,339	4,403	1,445	1,004	307	95	38	4,158	5,537
Dependents	686	5,830	2,644	3,379	1,019	822	97	90	9	4,812	5,235
Independents	667	5,528	988	4,680	1,559	1,053	364	97	45	3,982	5,621

[1]Limited to students who attended only one institution.

[2]Includes students who attended types of institutions other than those included here.

NOTE: Averages computed using zero values. Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table A.16b—Average tuition, budget, financial need, financial aid, net price, and earnings while enrolled for low-income undergraduates, by selected characteristics: 1995–96

					Financial aid						
	Tuition	Budget	EFC	Financial need	Total	Grants	Loans	Work-study	Other	Net price	Work
					All undergraduates						
Total	$2,610	$7,293	$832	$6,763	$3,342	$1,668	$1,370	$98	$206	$4,073	$3,772
Attendance status											
Full-time, full year	4,657	11,579	768	10,876	6,116	3,172	2,373	207	364	5,443	2,889
Part-time, full-year	1,576	6,764	832	6,089	2,403	1,195	1,021	77	111	4,355	4,840
Other	1,353	4,248	885	3,476	1,672	741	770	26	134	2,712	4,219
Type of institution[1]											
Public 4-year	2,618	8,803	854	8,071	4,607	2,090	2,161	136	220	4,173	3,678
Private, not-for-profit 4-year	7,823	13,442	1,025	12,595	7,377	4,147	2,515	263	452	6,068	3,388
Public 2-year	640	4,254	922	3,680	1,254	796	302	56	101	2,996	4,640
Private, for-profit	5,300	10,324	408	9,929	4,142	1,552	2,276	8	307	6,045	2,313
Dependency status for financial aid 1995–96											
Dependents	3,588	8,473	1,012	7,828	3,966	2,422	1,190	146	208	4,663	2,729
Independents without dependents	2,490	7,189	931	6,519	3,311	1,204	1,760	76	272	4,054	4,935
Independents with dependents	1,885	6,384	598	6,067	2,843	1,425	1,194	76	148	3,588	3,648
					Part-time, full-year undergraduates[1]						
Total[2]	$1,576	$6,764	$832	$6,089	$2,403	$1,195	$1,021	$77	$111	$4,355	$4,840
Type of institution and dependency status											
Public 4-year	2,332	8,936	854	8,177	3,916	1,463	2,212	97	144	5,020	5,116
Dependents	3,011	9,754	1,091	8,759	4,016	2,017	1,727	157	115	5,737	3,407
Independents	2,143	8,709	788	8,015	3,888	1,310	2,347	80	152	4,821	5,568
Private, not-for-profit 4-year	4,752	10,048	875	9,268	4,477	2,225	1,836	76	340	5,571	6,281
Dependents	4,959	9,828	1,176	8,752	4,671	2,893	1,521	96	161	5,157	3,364
Independents	4,683	10,121	774	9,442	4,412	2,001	1,941	69	400	5,709	7,210

Table A.16b—Average tuition, budget, financial need, financial aid, net price, and earnings while enrolled for low-income undergraduates, by selected characteristics: 1995–96—Continued

					Financial aid						
	Tuition	Budget	EFC	Financial need	Total	Grants	Loans	Work-study	Other	Net price	Work
Public 2-year	$683	$5,253	$829	$4,622	$1,465	$931	$398	$74	$62	$3,786	$4,427
Dependents	674	5,350	986	4,550	766	640	90	26	9	4,584	4,703
Independents	686	5,219	775	4,647	1,705	1,031	504	91	80	3,511	4,331

[1]Limited to students who attended only one institution.

[2]Includes students who attended types of institutions other than those included here.

NOTE: Averages computed using zero values. Table section for all undergraduates includes students who attended more than one institution; section for part-time, full-year undergraduates is limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Appendix B—Glossary

This glossary describes the variables used in this report. The items were taken directly from the NCES NPSAS:93, NPSAS:96, and BPS:96/98 undergraduate Data Analysis Systems (DAS), an NCES software application that generates tables from the NPSAS:93, NPSAS:96, and BPS:96/98 data (see appendix C for a description of the DAS).

The variables listed in the index below are organized by sections in the order they appear in the report. The variables in the glossary are presented in alphabetical order by the variable label in the DAS, shown in bold, capital letters and displayed along the right-hand column.

Glossary Index

NPSAS:96 VARIABLES

Institutional Characteristics

Institution type ..... AIDSECT
Tuition and fees TUITION2

Student Characteristics

Dependency status for financial aid DEPEND2
Gender ..... GENDER
Age ..... AGE
Race/ethnicity ..... RACE
Dependency status ..... DEPEND
Marital status ..... SMARITAL
Single parent status ..... SINGLPAR
Parents' education ..... PARED
Delayed postsecondary enrollment ..... DELAYENR
Attendance pattern ..... ATTNSTAT
Housing status ..... LOCALRES
Primary role ..... SEROLE
Income and dependency level ..... INCOME
Percent of poverty level PCTPOV94

Financial Aid Variables

Student budget ..... BUDGETAJ
Expected family contribution EFC4
Financial need SNEED1
Applied for financial aid ..... AIDAPP
Any aid/Total aid ..... TOTAID
Any grants/Average grant amount ..... TOTGRT
Total Pell grant ..... PELLAMT
Any loans/Any loan amount ..... TOTLOAN
Any work-study/Average work-study amount ..... TOTWKST
Any other type aid/Average other type aid amount ..... TOTOTHR
Stafford total maximum amount STAFFCT2
All Stafford loans ..... STAFFAMT
Stafford unsubsidized loans ..... STAFUNSB
Any federal aid/Average federal aid amount ..... TFEDAID
Any state aid/Average state aid amount ..... STATEAMT
Any institutional aid/Average institutional aid amount ..... INSTAMT
Total aid as a percentage of student budget AIDCST1
Ratio of grants to total aid ..... GRTPCT
Ratio of loans to total aid ..... LOANPCT
Ratio of federal aid to total aid ..... FEDPCT
Unmet need SNEED2
Net price NETCST1

Other Income Variables

Parents expected student to work in 1995–96 ..... SHWRKEXP
Percent who worked/Average hours worked per week while enrolled ..... HRSWORK
Student earnings while enrolled 1995–96 ..... WKINC
Direct contribution ..... PARPDIR
Allowance ..... SCPARALW
Average allowance ..... TOTALLOW
Parent(s) loans ..... SCPARLON

NPSAS:93 VARIABLES

Tuition	TUITION2
Student budget	BUDGETAR
Expected family contribution	EFC4
Financial need	SNEED3R2
Total aid	TOTAIDR2
Grant amount	TOTGRTR
Loan amount	TOTLOANR
Work-study	TOTWKST
Other aid	TOTOTHR
Net price	NETCST3R
Student earnings (work)	WRKINC2

BPS:96 VARIABLES

Total 3-year persistence and attainment	PRENRLB1
Gender	SBGENDER
Race/ethnicity	SBRACE
Dependency status	SBDEP2Y1
Parents' education	PBEDBOT2
Delayed postsecondary enrollment	ENDELAY
Type of first institution	ITNPSAS2
Attendance pattern	ENIPY1
Hours worked per week	JEHOURB1
Received loans	AALON1Y1
Parent loans	PSLOANY1
Parent contribution	PSDRCTY1
Percent of poverty level	SFPOV94

NPSAS:96 VARIABLES

Age **AGE**

Indicates student's age as of 12/31/95. Calculated from date of birth.

Less than 24 years
24–29 years
30 years or older

Applied for financial aid **AIDAPP**

Indicates whether the student ever applied for financial aid in 1995–96 (Yes/No). Students who were not interviewed and had no record of an aid application were assumed to have not applied.

Total aid as a percentage of student budget **AIDCST1**

Indicates ratio of total aid to the attendance-adjusted student budget during 1995–96. Equal to the total amount of all aid (TOTAID) divided by the attendance-adjusted student budget (BUDGETAJ). For students attending more than one institution during 1995–96, aid ratios, budgets, net cost, and need were calculated for the aid received at the NPSAS institution in relation to the budget and attendance at the NPSAS institution.

Institution type **AIDSECT**

Indicates the level and control of the NPSAS institution. Institution level concerns the institution's highest offering, and control concerns the source of revenue and control of operations. Students attending more than one institution in 1995–96 are in a separate category because information on tuition, price of attendance, and financial aid at the second institution is incomplete or unknown. "More than one institution" is not shown in the tables, but is included in the totals. Doctorate- and nondoctorate-granting 4-year institutions are aggregated in this report. Public less-than-2-year and private, not-for-profit less-than-4-year are not shown in the tables. They are included in the totals, as indicated on the tables.

Public 4-year	Public institutions are supported primarily by public funds and operated by publicly elected or appointed officials who control the programs and activities. Public 4-year institutions award bachelor's degrees or higher, including doctorate and first-professional degrees. First-professional degrees include chiropractic, pharmacy, dentistry, podiatry, medicine, veterinary medicine, optometry, law, osteopathic medicine, and theology.
Private, not-for-profit 4-year	Private, not-for-profit institutions are controlled by an independent governing board and incorporated under section 501(c)(3) of the Internal Revenue Code. Private, not-for-profit 4-year institutions offer the same range of degrees as public 4-year institutions.
Public 2 year	Public 2-year institutions are public institutions (described above) that do not confer bachelor's degrees, but provide 2-year programs that result in a certificate or an associate's degree, or 2-year programs that fulfill part of the requirements for a bachelor's degree or higher at a 4-year institution.

Private, for-profit	Private, for-profit institutions are privately owned and operated as profit-making enterprises. They include career colleges and proprietary institutions. They may be 4-year, 2-year, or less-than-2-year institutions. Less-than-2-year institutions offer at least one program that is three months or longer and produces a terminal award or certificate. In addition, no program at these institutions lasts longer than 2 years.
Other	This residual category includes public less-than-2-year institutions and private, not-for-profit less-than-4-year institutions. In addition, students attending more than one institution in 1995–96 were categorized as attending "other" types of institutions.

Attendance pattern **ATTNSTAT**

Combined attendance intensity and persistence during 1995–96. Intensity refers to the student's full- or part-time attendance while enrolled. Persistence refers to the number of months a student was enrolled during the year. Students were considered to have been enrolled for a full year if they were enrolled for 8 or more months during 1995–96. Months did not have to be contiguous or at the same institution, and students did not have to be enrolled for a full month in order to be considered enrolled for that month. In prior NPSAS surveys, full year had been defined as 9 or more months.

Full-time, full-year, one institution
Part-time, full-year, one institution
Other

Student budget **BUDGETAJ**

Indicates total student budget (attendance-adjusted) at the NPSAS school. This variable is comparable to the NPSAS:93 variable BUDGETAR. For more details see BUDGETAR.

Delayed postsecondary enrollment **DELAYENR**

Indicates the number of years between high school graduation and entry into postsecondary education. Assumes high school graduation takes place in May or June. If the student entered PSE in the summer or fall subsequent to high school graduation (entered in the same calendar year) then the student is not considered delayed. Otherwise, the variable represents number of years (calendar years) student delayed enrollment into PSE.

No delay
1 year delay
2 years or more

Dependency status **DEPEND**

Student dependency status. Students were considered independent if they met any of the following criteria:

1) Student was age 24 or older as of 12/31/95;
2) Student was a veteran of the U.S. Armed Forces;
3) Student was enrolled in a graduate or professional program (beyond a bachelor's degree) in 1995–96;
4) Student was married;
5) Student was an orphan or ward of the court; or
6) Student had legal dependents other than spouse.

In addition, financial aid officers may designate students who do not meet these criteria to be independent, if the students can document that they are in fact self-supporting.

Dependent
Independent

Dependency status for financial aid **DEPEND2**

Student dependency status for financial aid. Combines student dependency status and whether they have dependents. The distinction between the two types of independent students changed between NPSAS:93 and NPSAS:96 as a result of the 1992 Reauthorization Amendments. Prior to the 1993–94 academic year, the spouse of a married student was considered to be a dependent of the student, and married students without children were classified as independent *with* dependents. As of 1993–94, the spouse of a student is not considered to be that student's dependent, so married students without children are classified as independent *without* dependents in NPSAS:96.

Dependent
Independent without dependents
Independent with dependents

Expected family contribution **EFC4**

Indicates composite expected family contribution for 1995–96. The best estimate of the student's EFC, derived from examining the EFC values reported in the Pell payment file, the CPS matching records, the NPSAS institution in CADE, or estimated by regressions based on dependency, family size, income, assets, and number in college. Differences in the timing of these sources (any time during the NPSAS year), differences in the institutions to which they refer (not necessarily the NPSAS institution where the student was sampled), changes in the student's dependency status and financial situation during the period of a year, and the potential use of professional judgment changes by financial aid officers at any time or at any institution make it impossible to determine a single definitive EFC value or dependency status for all students during the entire year. For Pell grant recipients, the EFC on the Pell payment file was always used; for other financial aid recipients, the primary EFC from the most recent CPS record (CPS162) was used if available, or an EFC reported by the NPSAS institution was used. Approximately 52 percent of the EFCs were imputed. The percentage of students with reported EFCs in a particular category is approximately the same as the percentage who received federal financial aid in that category.

Ratio of federal aid to total aid **FEDPCT**

Indicates the proportion of total aid that is federal. Equal to total amount of federal aid, excluding veteran's benefits (VA/DOD), but including PLUS loans divided by total amount of all aid.

Gender **GENDER**

Male
Female

Ratio of grants to total aid **GRTPCT**

Indicates the percentage of total aid that was grant aid during 1995–96. Equal to total amount of grant aid divided by total aid amount, multiplied by 100. Only computed for those who had some aid. For students attending more than one institution during 1995–96, aid ratios, budgets, net cost, and need were calculated for the aid received at the NPSAS institution in relation to the budget and attendance at the NPSAS institution.

Percent who worked/
Average hours worked per week while enrolled **HRSWORK**

Average number of hours per week that students reported working while enrolled in 1995–96. It is based on the student CATI question "About how many hours did you work per week while you were enrolled?" The variable does not include hours worked when the student was not enrolled.

Did not work
1–15 hours
16–20 hours
21–34 hours
35 hours or more

Income and dependency level **INCOME**

Indicates total family income in 1994 (categorical) by student dependency status.

Dependent
- Less than $20,000
- $20,000–$29,999
- $30,000–$39,999
- $40,000–$49,999
- $50,000–$59,999
- $60,000–$69,999
- $70,000–$79,999
- $80,000–$99,999
- $100,000 or more

Independent
- Less than $5,000
- $5,000–$9,999
- $10,000–$19,999
- $20,000–$29,999
- $30,000–$49,999
- $50,000 or more

Any institutional aid/ Average institutional aid amount **INSTAMT**

Indicates the total institutional aid amount received during 1995–96. Equal to the sum of institutional grants and fellowships, loans, institution-sponsored work-study, and all other institutional amounts including assistantships. The percentage with a positive value is the percentage with institutional aid. See grid under TOTAID for more information.

Ratio of loans to total aid **LOANPCT**

Indicates the ratio of loans to total aid, or the percentage of total aid that is loans received during 1995–96. Equal to total amount of all loans, excluding PLUS divided by total amount of all aid multiplied by 100. Only computed for students who had some amount of aid. For students attending more than one institution during 1995–96, aid ratios, packages, budgets, net cost, and need were calculated for the aid received at the NPSAS institution in relation to the budget and attendance at the NPSAS institution. Students attending more than one institution are also identified as a separate category in AIDSECT (Institution type for financial aid).

Housing status **LOCALRES**

The student housing status as reported either by the NPSAS institution for the student budget, by the student on the financial aid application, or by the student in the telephone interview.

On campus	Student lived in institution-owned living quarters for students. These are typically institution-owned dormitories, residence halls, or other facilities.
Off campus	Student lived off campus in noninstitution-owned housing, but not with his or her parents or other relatives.
With parents/other relatives	Student lived at home with parents or other relatives.

Net price **NETCST1**

Indicates attendance-adjusted student budget minus total aid. This item helps to answer "On average, how much money did students (including full-time and part-time students) who attended in 1995–96 need to come up with, considering the student budget (tuition, books, fees, living expenses) then subtracting all aid received (grants, loans, work-study)?" It is not the total amount, because the loans will need to be repaid someday.

Parents' education **PARED**

The highest level of education completed by the student's parents (mother or father, whoever has the highest level).

Less than high school	Neither parent graduated from high school or received a General Educational Development (GED) certificate.
High school diploma	One or both parents graduated from high school or received a GED.
At least some college	One or both parents had some postsecondary education.

Direct contribution **PARPDIR**

For CATI respondents under age 30 only, indicates whether parents reported making a direct contribution to the institution to pay for tuition, housing, meals, or books. If not available, the student's report of direct payment for tuition, room and board, or books was used.

No support
$1,000 or less
More than $1,000

Percent of poverty level **PCTPOV94**

Indicates total 1994 income as a percentage of the federal poverty-level thresholds for 1994. Based on family size, total income, and dependency. Refers to the family of the parents of dependent students and the student's own family if independent. Derived from total income in 1994 based on dependency and household size based on dependency. Maximum set at 1,000 (10 times poverty threshold); all values above 1,000 are recoded to 1,000. Students were defined as low income if their family income was below 125 percent of poverty threshold for their family size.

Total Pell grant **PELLAMT**

Indicates the federal Pell grant amount received during 1995–96 at all schools attended. Institutional reports in CADE were supplemented with the 1995–96 Pell grant payment file information that includes payments at schools other than the NPSAS school if the student attended more than one during the NPSAS year. Pell grants are awarded to undergraduates who have not yet received a bachelor's or first-professional degree. They are intended as a financial base to which other financial aid awards can be added. The amount of a Pell grant depends on EFC, cost of attendance, and attendance status (i.e. full-time or part-time, full-year or part-year). In 1995–96, the maximum Pell grant amount was $2,340.

Race/ethnicity **RACE**

White, non-Hispanic	A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).
Black, non-Hispanic	A person having origins in any of the black racial groups of Africa, not of Hispanic origin.
Hispanic	A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
Asian/Pacific Islander	A person having origins in any of the peoples of the Far East, Southeast Asia, the Indian subcontinent, or Pacific Islands. This includes people from China, Japan, Korea, the Philippine Islands, Samoa, India, and Vietnam.
American Indian/Alaskan Native	A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.
Other	A person not in any of the above categories.

Allowance **SCPARALW**

For CATI respondents age 30 or younger with a parent/guardian, this variable indicates the amount parents paid as allowance in 1995–96.

Parent(s) loans **SCPARLON**

For CATI respondents age 30 or younger with a parent/guardian, this variable indicates the amount of money the student borrowed from parents to meet 1995–96 school expenses. This is money that the student expects to repay.

Primary role **SEROLE**

Student response to the question "While you were working, would you say that you were primarily a student working to meet expenses or an employee who's decided to enroll in school?" Asked on student CATI.

Not working
Student working to meet expenses
Employee enrolled in school

Parents expected student to work in 1995–96 **SHWRKEXP**

Student response to the question "Did your [referent parent] expect you to have a job for pay during the 1995–96 school year?" Asked of all dependent students on student CATI (Yes/No).

Single parent status **SINGLPAR**

Indicates whether student was a single parent in 1995–96. Students were considered to be single parents if they had dependents and were not married. Asked on student CATI (Yes/No).

Not a single parent
Single parent

Marital status **SMARITAL**

Marital status of student when applied for financial aid in 1995–96.

Separated or not married
Married

Financial need **SNEED1**

This variable measures total need for financial aid based on the price of attendance minus the expected family contribution.

Unmet need **SNEED2**

This variable measures unmet need based on the price of attendance minus the expected family contribution minus financial aid received, if any, including loans.

All Stafford loans **STAFFAMT**

Indicates the total amount of Stafford loans (Direct, FFEL, subsidized, and unsubsidized) received during 1995–96, including loans borrowed to attend schools other than the NPSAS school. All of the federal loan variables in NPSAS:96 include the loans borrowed at all schools attended, since the CADE institutional-reported amounts were supplemented with information from the National Student Loan Data System (NSLDS).

There are four categories of federal Stafford Loans. Under the Direct Loan Program, the federal government makes loans directly to students and parents through schools. Under the FFEL Program, private lenders such as banks, credit unions, and savings and loan associations usually make the loans. Although the source of funds is different, both programs provide the same types of loans. A *subsidized* loan is awarded on the basis of financial need. If a student qualifies for a subsidized loan, the federal government pays the interest on the loan until the student begins repayment and during authorized periods of deferment thereafter. An *unsubsidized* loan is not awarded on the basis of need. If a student qualifies for an unsubsidized loan, he or she is charged interest from the time the loan is disbursed until it is paid in full. Students can choose to pay the interest or allow it to accumulate. If the student allows the interest to accumulate, it will be capitalized (added to the principal amount of the loan). Annual loan limits vary considerably.

Stafford total maximum amount **STAFFCT2**

Indicates the Stafford total amount categories received during 1995–96. Classifies the Stafford loan total amount (STAFFAMT) into categories based on maximum loan amounts for subsidized and unsubsidized loans combined. Maximum loan amounts were determined by the student's class level and dependency status according to the following table:

Student class level:	Dependent:	Independent:
First year	$2,625	$6,625
Second year	$3,500	$7,500
Third–fifth year	$5,500	$10,500
Graduate/First-professional	N.A.	$18,500

None
Less than maximum
Maximum

Stafford unsubsidized loans **STAFUNSB**

Indicates the amount of unsubsidized Stafford (FFEL or Direct) loans received during 1995–96. For more information about loans, see STAFFAMT.

Any state aid/ **STATEAMT**
Average state aid amount

Indicates the amount of state aid received during 1995–96. Equal to the sum of state grants (STGTAMT), state loans (STLNAMT), state-sponsored work-study (STWKAMT), and all other state financial aid (STOTHAMT). Includes amounts awarded for state work-study and State Student Incentive Grants (SSIG) grants (including the federal portion). The percentage with a positive value on this variable is the percentage with any state aid. See grid under TOTAID for more information.

Any federal aid/ **TFEDAID**
Average federal aid amount

Indicates the total amount of federal financial aid, excluding veterans benefits. Equal to the sum of federal loans (TFEDLN), federal grants (TFEDGRT), federal work-study (TFEDWRK), and all other federal financial aid, excluding veteran's benefits, received during 1995–96. The percentage with a positive amount for this variable is the percentage with any federal aid. See grid under TOTAID for more information.

Any aid/ **TOTAID**
Total aid

Indicates the total amount of all financial aid received during 1995–96. The percentage with a positive value is the percentage with any aid. Aid status identifies those with a positive amount. TOTAID is related to other award variables by type and source of aid according to this grid:

	Federal	+	State	+	Institutional	+	Other	=	Total
Grants:	TFEDGRT	+	STGTAMT	+	INGRTAMT	+	OTHGTAMT	=	TOTGRT
Loans:	TFEDLN	+	STLNAMT	+	INLNAMT	+	OTHLNAMT	=	TOTLOAN
Work:	TFEDWRK	+	STWKAMT	+	INSTCWS	+	OTHWKAMT	=	TOTWKST
Other:	TFEDOTHR	+	STOTHAMT	+	INOTHAMT	+	OTHROTHR	=	TOTOTHR
Total:	TFEDAID	+	STATEAMT	+	INSTAMT	+	OTHRSCR	=	TOTAID

PLUS loans are included in TFEDOTHR and TOTOTHR rather than in TFEDLN and TOTLOAN. Veteran's and military benefits are included in OTHROTHR ("other" financial aid), rather than as part of any federal aid totals. Assistantships are classified as "other" type and "institutional" source. There are two totals of "other" amounts: other by type and other by source.

TOTOTHR is the total of all amounts that were not classified by type as grants, loans, or work-study. This includes PLUS loans (PLUSAMT3), veterans benefits and military aid, and vocational rehabilitation and JTPA. OTHRSCR is the total of all amounts that were not classified by source as federal, state, or institutional, including employer aid and private aid. The percentage with a positive value is the percentage with any aid. Aid status identifies those with a positive amount.

NOTE: Not all NPSAS DAS variables shown in this grid are used individually in this report, and thus they do not appear in the glossary.

Average allowance **TOTALLOW**

For CATI respondents aged 30 or younger, this variable indicates the total amount of allowance the student reported receiving from his or her parents during 1995–96.

Any grants/
Average grants amount **TOTGRT**

Indicates the total amount of all grants and scholarships: federal, state, institutional, and other received during 1995–96. Equal to sum of all federal grants (TFEDGRT), state grants (STGTAMT), institutional grants (INGTAMT), and "other" grants that were not classified as federal, state, or institutional. Includes employer tuition reimbursements. The percentage with a positive value is the percentage with any grant aid. Grant status identifies those with a positive amount. See grid under TOTAID for more information.

Any loans/
Average loan amount **TOTLOAN**

Indicates the total amount of all loans: federal, state, institutional, and private sector received during 1995–96 except PLUS. Equal to the sum of federal loan amount, state loan amount, institution loan amount, and other loan amount. Does not include PLUS loans. The percentage with a positive value is the percentage with any loan aid. Loan status identifies those with a positive amount.

Any other type aid/
Average other type aid amount **TOTOTHR**

Indicates the total amount of aid received during 1995–96 that was not classified as grants, loans, or work-study. Includes teaching and research assistantships, PLUS loans, veteran's benefits and military tuition aid, vocational rehabilitation, and JTPA. Equal to the sum of other federal amounts, other state amounts (STOTHAMT), and other institutional amounts (INOTHAMT). The percentage with a positive value is the percentage with any other aid.

Any work-study/
Average work-study amount **TOTWKST**

Indicates the total amount of all work-study awards received during 1995–96. Equal to the sum of federal work-study amount (TFEDWRK), state work-study amount (STWKAMT), and institution work-study amount (INSTWRK). The percentage with a positive value is the percentage with any work-study aid.

Tuition and fees **TUITION2**

Indicates the amount of tuition charged the student for the terms attended at the NPSAS institution, as reported by the institution. If tuition amounts were not reported, they were estimated based on the average per credit or per term charges for other students at the institution according to their class level, degree program, and attendance status. Students attending more than one institution during 1995–96 are excluded, since their tuition at the second institution is unknown.

Student earnings while enrolled 1995–96 **WKINC**

For CATI respondents who were employed, this variable indicates student income earned from working while enrolled during 1995–96. Income was constructed by examining student-reported income from working while enrolled and the frequency of that income.

NPSAS:93 VARIABLES

Student budget **BUDGETAR**

This variable estimates the student budget based on tuition paid, number of months enrolled, and attendance status while enrolled. Nontuition costs are reduced for half-time (75 percent), unknown status (50 percent), and less than half-time (25 percent) and the actual tuition is added to the estimated nontuition costs. Applies only to the months attended at the NPSAS institution if more than one institution was attended. This variable is comparable to the NPSAS:96 variable BUDGETAJ.

Expected family contribution **EFC4**

Indicates composite expected family contribution for 1992–93. The best estimate of the student's EFC, derived from examining the EFC values reported in the Pell payment file, the CPS matching records, the NPSAS institution in CADE, or estimated by regressions based on dependency, family size, income, assets, and number in college. Differences in the timing of these sources (any time during the NPSAS year), differences in the institutions to which they refer (not necessarily the NPSAS institution where the student was sampled), changes in the student's dependency status and financial situation during the period of a year, and the potential use of professional judgment changes by financial aid officers at any time or at any institution make it impossible to determine a single definitive EFC value or dependency status for all students during the entire year. For Pell grant recipients, the EFC on the Pell payment file was always used; for other financial aid recipients, the primary EFC from the most recent CPS record (CPS162) was used if available, or an EFC reported by the NPSAS institution was used. Approximately 52 percent of the EFCs were imputed. The percentage of students with reported EFCs in a particular category is approximately the same as the percentage who received federal financial aid in that category. This variable is comparable to the NPSAS:96 variable EFC4.

Net price **NETCST3R**

Indicates attendance-adjusted student budget minus total aid. This item helps to answer "On average, how much money did students (including full-time and part-time students) who attended in 1993–94 need to come up with, considering the student budget (tuition, books, fees, living expenses) then subtracting all aid received (grants, loans, work-study)?" It is not the total amount, because the loans will need to be repaid someday. This variable is comparable to the NPSAS:96 variable NETCST1.

Financial need **SNEED3R2**

Need for financial aid according to federal methodology. Equal to the adjusted student budget minus the EFC. Negative values were set to zero. Revised September 1998 to exclude all students with missing budgets or EFC data. Comparable to the NPSAS:96 variable SNEED1.

Total aid **TOTAIDR2**

Indicates the total amount of all financial aid received during 1992–93. The percentage with a positive value is the percentage with any aid. Aid status identifies those with a positive amount. For more detailed information, please see the NPSAS:96 variable TOTAID.

Grant amount **TOTGRTR**

Average total amount of all grants: federal, state, institutional, and other. Equal to the sum of total of all federal grants, total of all state grants, total of all institutional grants, and other grants that could not be classified as federal, state, or institutional. Comparable to the NPSAS:96 variable TOTGRT.

Total loan amount (except PLUS) **TOTLOANR**

Average total amount of all loans: federal, state, and institutional. Equal to the sum of federal loan amount, state loan amount, institution loan amount, and other loan amount. Does not include PLUS loans. Comparable to the NPSAS:96 variable TOTLOAN.

Other aid **TOTOTHR**

Total of amounts that could not be classified as grants, loans, or work-study. Includes teaching and research assistantships, PLUS loans and veteran's benefits. Equal to the sum of total of other federal amounts, total of other state amounts, total of other institutional amounts, and total of other "other" amounts, i.e., those that could be classified as neither federal/state/institutional nor as grants/loans/work-study. Comparable to the NPSAS:96 variable TOTOTHR.

Tuition **TUITION2**

Tuition and fees charged at the sampled NPSAS institution for the terms attended in 1992–93. Excludes students who attended more than one institution. Comparable to the NPSAS:96 variable TUITION2.

Work-study **TOTWKST**

Total amount of all work-study awards. Equal to the sum of total federal work-study amount, total state work-study amount, total institution work-study amount, and total other work-study amount. Research assistantships and teaching assistantships are included in "other" institutional aid amounts.

Student earnings (work) **WRKINC2**

Student's total income from all jobs, including work-study and assistantships, between July 1, 1992 and June 30, 1993. Based primarily on CATI data. Comparable to the NPSAS:96 variable WRKINC.

BPS:96/98 VARIABLES

Received loans **AALON1Y1**

Indicates whether student received loans and the average total amount of all loans federal, state, institutional, and private sector received during 1995–96, excluding PLUS loans (Yes/No).

Delayed postsecondary enrollment **ENDELAY**

Indicates whether respondents delayed enrollment in postsecondary education, as determined by receipt of high school diploma prior to 1995 or reaching age 20 before December 31, 1995.

Did not delay
Delayed

Attendance pattern **ENIPY1**

Pattern of enrollment intensity during months enrolled during 1995–96 academic year.

Always full-time
Always part-time
Mixed

Type of first institution **ITNPSAS2**

Level and control of the first institution attended. The sample size of beginners at less-than-2-year private, not-for-profit institutions was too small to report.

Public 4-year	Public institutions are supported primarily by public funds and operated by publicly elected or appointed officials who control the programs and activities. Public 4-year institutions award bachelor's degrees or higher, including doctorate and first-professional degrees. First-professional degrees include chiropractic, pharmacy, dentistry, podiatry, medicine, veterinary medicine, optometry, law, osteopathic medicine, and theology.
Private, not-for-profit 4-year	Private, not-for-profit institutions are controlled by an independent governing board and incorporated under section 501(c)(3) of the Internal Revenue Code. Private, not-for-profit 4-year institutions offer the same range of degrees as public 4-year institutions.
Public 2-year	Public 2-year institutions are public institutions (described above) that do not confer bachelor's degrees, but provide 2-year programs that result in a certificate or an associate's degree, or 2-year programs that fulfill part of the requirements for a bachelor's degree or higher at a 4-year institution.
Public, less-than-2 year	Public less-than-2-year institutions are public institutions (described above) where all programs are less than 2 years in du-

	ration. The institution must offer a minimum of one program of at least 3 months in duration that results in a terminal certificate or license or is creditable toward a formal 2-year or higher award.
All others	This residual category includes private, not-for-profit less-than-4-year; private, for-profit less-than-2 year; and private, for-profit 2-year or more institutions.

Hours worked per week **JEHOURB1**

Average number or hours per week that students reported working while enrolled in enrolled in 1995–96. It is based on the student CATI question: About how many hours do/did you work each week while you are/were enrolled?" The variable does not include hours worked when the student was not enrolled.

0 hours
1–14 hours
15–24 hours
25 or more hours

Parents' education **PBEDBOT2**

The highest level of education completed by the student's parents (mother or father, whoever has the highest level).

Less than high school
High school diploma
At least some college

Total 3-year persistence and attainment **PRENRLB1**

Identifies whether students had attained a degree by June 1998 and whether or not they were enrolled during spring 1998 by level of institution. Enrollment during any month from February through June 1998 constitutes enrollment during spring 1998. This analysis looks at students who attained or were still enrolled.

Parent contribution **PSDRCTY1**

Indicates whether parents reported making a direct contribution to the institution to pay for student tuition, housing, meals, or books. If not available student's report of direct payment for tuition, room and board, or books was used. Asked on parent CATI in NPSAS:96 (Yes/No).

Parent loans **PSLOANY1**

Indicates whether respondent borrowed money from parents to help pay expenses during 1995–96. Asked on student CATI in NPSAS:96 (Yes/No).

Dependency status **SBDEP2Y1**

Student dependency status for financial aid. Combines student dependency status and whether they have dependents. The distinction between the two types of independent students changed between NPSAS:93 and NPSAS:96 as a result of the 1992 Reauthorization Amendments. Prior to the 1993–94 academic year, the spouse of a married student was considered to be a dependent of the student, and married students without children were classified as independent *with* dependents. As of 1993–94, the spouse of a student is not considered to be that student's dependent, so married students without children are classified as independent *without* dependents in NPSAS:96.

Dependent
Independent without dependents
Independent with dependents

Gender **SBGENDER**

Male
Female

Race/ethnicity **SBRACE**

White, non-Hispanic	A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).
Black, non-Hispanic	A person having origins in any of the black racial groups of Africa, not of Hispanic origin.
Hispanic	A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
Asian/ Pacific Islander	A person having origins in any of the peoples of the Far East, Southeast Asia, the Indian subcontinent, or Pacific Islands. This includes people from China, Japan, Korea, the Philippine Islands, Samoa, India, and Vietnam.
American Indian/Alaskan Native	A person having origins in any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition.

Percent of poverty level **SFPOV94**

Indicates total 1994 income as a percentage of the federal poverty-level thresholds for 1994. Based on family size, total income, and dependency. Refers to the family of the parents of dependent students and the student's own family if independent. Derived from total income in 1994 based on dependency and household size based on dependency. Maximum set at 1,000 (10 times poverty threshold); all values above 1,000 are recoded to 1,000. Students were defined as low income if their family income was below 125 percent of poverty threshold for their family size.

Appendix C—Technical Notes and Methodology

The National Postsecondary Student Aid and Beginning Postsecondary Students Studies

The National Postsecondary Student Aid Study (NPSAS) is a comprehensive nationwide study conducted by the U.S. Department of Education's National Center for Education Statistics (NCES) to determine how students and their families pay for postsecondary education.[18] It also describes demographic and other characteristics of students enrolled. The study is based on a nationally representative sample of all students in postsecondary education institutions, including undergraduate, graduate, and first-professional students. Students attending all types and levels of institutions are represented in the sample, including public and private institutions, less-than-2-year institutions, 2-year institutions, and 4-year colleges and universities. The study is designed to address the policy questions resulting from the rapid growth of financial aid programs and the succession of changes in financial aid program policies since 1986. The first NPSAS was conducted in 1986–87, then again in 1989–90, 1992–93, and 1995–96. This report relied primarily on data from the 1995–96 NPSAS. The 1992–93 NPSAS was used to examine change over time in selected variables.

The Beginning Postsecondary Student Longitudinal Study (BPS) is composed of the students who participated in the 1995–96 National Postsecondary Student Aid Survey (NPSAS:96) who enrolled in postsecondary education for the first time in 1995–96. The BPS sample consists of students identified in NPSAS:96 as beginning postsecondary education for the first time. Unlike other NCES longitudinal surveys (such as High School and Beyond) which are based on age-specific cohorts, the BPS sample is more likely to include some of the increasing numbers of "nontraditional" postsecondary students, such as those who have delayed their education due to financial need or family responsibilities. The first follow-up of the BPS cohort (BPS:96/98) occurred in the spring and summer of 1998, approximately 3 years after they first enrolled.

[18]For more information on the NPSAS survey, consult U.S. Department of Education, National Center for Education Statistics, *Methodology Report for the 1995–96 National Postsecondary Student Aid Study* (NCES 98–073) (Washington, DC: 1997). Additional information is also available at http://nces.ed.gov/npsas.

Accuracy of Estimates

The statistics in this report are estimates derived from a sample. Two broad categories of error occur in such estimates: sampling and nonsampling errors. Sampling errors occur because observations are made only on samples of students, not entire populations. Nonsampling errors occur not only in sample surveys but also in complete censuses of entire populations. Nonsampling errors can be attributed to a number of sources: inability to obtain complete information about all students in all institutions in the sample (some students or institutions refused to participate, or students participated but answered only certain items); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording or coding data; and other errors of collecting, processing, sampling, and imputing missing data.

Data Analysis System

The estimates presented in this report were produced using the NPSAS:96, NPSAS:93, and BPS:96/98 Data Analysis Systems (DAS). The DAS software makes it possible for users to specify and generate their own tables. With the DAS, users can replicate or expand upon the tables presented in this report. In addition to the table estimates, the DAS calculates proper standard errors[19] and weighted sample sizes for these estimates. For example, table C1 contains standard errors that correspond to table 4, generated by the DAS. If the number of valid cases is too small to produce a reliable estimate (less than 30 cases), the DAS prints the message "low-N" instead of the estimate.

In addition to tables, the DAS will also produce a correlation matrix of selected variables to be used for linear regression models. Included in the output with the correlation matrix are the design effects (DEFTs) for each variable in the matrix. Since statistical procedures generally compute regression coefficients based on simple random sample assumptions, the standard errors must be adjusted with the design effects to take into account the stratified sampling method used in the NPSAS and BPS surveys.

[19]The NPSAS:96 samples are not simple random samples, and therefore, simple random sample techniques for estimating sampling error cannot be applied to these data. The DAS takes into account the complexity of the sampling procedures and calculates standard errors appropriate for such samples. The method for computing sampling errors used by the DAS involves approximating the estimator by the linear terms of a Taylor series expansion. The procedure is typically referred to as the Taylor series method.

For more information about the NPSAS:93, NPSAS:96, BPS:96/98, and other Data Analysis Systems, consult the NCES DAS website (www.nces.ed.gov/das) or its West Coast mirror site (www.pedar-das.org), or contact:

Aurora D'Amico
NCES Postsecondary and Educational Outcomes Longitudinal Studies
555 New Jersey Avenue, NW
Washington, DC 20208-5652
(202) 219-1365
Internet address: Adamico@inet.ed.gov

Table C1—Standard errors for table 4: Percentage of low-income undergraduates enrolled full time, full year who applied for and received financial aid, by type of aid, type of institution, and dependency status: 1995–96

			Type of aid				
	Applied for aid	Any aid	Grants	Pell grant[1]	Loans	Work study	Other[2]
Total[3]	0.88	1.02	1.12	1.30	1.59	0.99	0.70
Type of institution and dependency status							
Public 4-year	0.93	1.05	1.30	1.53	1.85	0.99	0.83
Dependents	1.36	1.59	1.71	2.23	2.48	1.27	0.95
Independents without dependents	1.58	1.73	2.50	2.43	2.28	1.59	1.91
Independents with dependents	1.48	1.66	1.75	1.96	2.91	2.30	2.04
Private, not-for-profit 4-year	0.90	2.32	2.32	2.67	2.41	2.11	1.54
Dependents	1.20	3.60	3.60	3.71	2.93	2.78	1.84
Independents without dependents	1.45	1.69	2.15	3.96	4.12	3.49	3.52
Independents with dependents	2.56	3.13	3.38	3.90	4.32	3.38	1.98
Public 2-year	2.77	2.84	3.35	4.09	3.28	3.44	2.03
Dependents	4.63	4.77	5.12	6.10	4.33	5.53	2.29
Independents without dependents	7.03	7.04	8.02	9.95	8.79	4.60	4.62
Independents with dependents	3.94	3.97	4.07	4.96	4.69	3.78	3.21

[1]Included in grants.

[2]All other types of aid, such as assistantships, veterans benefits and military tuition aid, vocational rehabilitation, and JTPA.

[3]Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Statistical Procedures

Differences Between Means

The descriptive comparisons were tested in this report using Student's *t* statistic. Differences between estimates are tested against the probability of a Type I error,[20] or significance level. The significance levels were determined by calculating the Student's *t* values for the differences between each pair of means or proportions and comparing these with published tables of significance levels for two-tailed hypothesis testing.

Student's *t* values may be computed to test the difference between estimates with the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}} \qquad (1)$$

where E_1 and E_2 are the estimates to be compared and se_1 and se_2 are their corresponding standard errors. This formula is valid only for independent estimates. When estimates are not independent, a covariance term must be added to the formula:

$$\frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2 - 2(r)se_1\ se_2}} \qquad (2)$$

where *r* is the correlation between the two estimates.[21] This formula is used when comparing two percentages from a distribution that adds to 100. If the comparison is between the mean of a subgroup and the mean of the total group, the following formula is used:

$$\frac{E_{sub} - E_{tot}}{\sqrt{se_{sub}^2 + se_{tot}^2 - 2p\,se_{sub}^2}} \qquad (3)$$

where *p* is the proportion of the total group contained in the subgroup.[22] The estimates, standard errors, and correlations can all be obtained from the DAS.

---

[20]A Type I error occurs when one concludes that a difference observed in a sample reflects a true difference in the population from which the sample was drawn, when no such difference is present.

[21]U.S. Department of Education, National Center for Education Statistics, A Note from the Chief Statistician, no. 2, 1993.

[22]Ibid.

There are hazards in reporting statistical tests for each comparison. First, comparisons based on large *t* statistics may appear to merit special attention. This can be misleading since the magnitude of the *t* statistic is related not only to the observed differences in means or percentages but also to the number of students in the specific categories used for comparison. Hence, a small difference compared across a large number of students would produce a large *t* statistic.

A second hazard in reporting statistical tests for each comparison occurs when making multiple comparisons among categories of an independent variable. For example, when making paired comparisons among different levels of income, the probability of a Type I error for these comparisons taken as a group is larger than the probability for a single comparison. When more than one difference between groups of related characteristics or "families" are tested for statistical significance, one must apply a standard that assures a level of significance for all of those comparisons taken together.

Comparisons were made in this report only when $p \leq .05/k$ for a particular pairwise comparison, where that comparison was one of k tests within a family. This guarantees both that the individual comparison would have $p \leq .05$ and that for k comparisons within a family of possible comparisons, the significance level for all the comparisons will sum to $p \leq .05$.[23]

For example, in a comparison of males and females, only one comparison is possible (males versus females). In this family, $k=1$, and the comparison can be evaluated without adjusting the significance level. When students are divided into five racial/ethnic groups and all possible comparisons are made, then $k=10$ and the significance level of each test must be $p \leq .05/10$, or $p \leq .005$. The formula for calculating family size (k) is as follows:

$$k = \frac{j(j-1)}{2} \tag{4}$$

where j is the number of categories for the variable being tested. In the case of race/ethnicity, there are five racial/ethnic groups (American Indian/Alaskan Native; Asian/Pacific Islander; black, non-Hispanic; Hispanic; and white, non-Hispanic), so substituting 5 for j in equation 2,

$$k = \frac{5(5-1)}{2} = 10$$

[23]The standard that $p \leq .05/k$ for each comparison is more stringent than the criterion that the significance level of the comparisons should sum to $p \leq .05$. For tables showing the *t* statistic required to ensure that $p \leq .05/k$ for a particular family size and degrees of freedom, see Olive Jean Dunn, "Multiple Comparisons Among Means," *Journal of the American Statistical Association* 56 (1961): 52–64.

Adjustment of Means to Control for Background Variation

Tabular results are limited by sample size when attempting to control for additional factors that may account for the variation observed between two variables. For example, when examining the percentages of those who completed a degree or were still enrolled in postsecondary education 3 years after their initial enrollment, it is impossible to know to what extent the observed variation is due to socioeconomic status (SES) differences and to what extent it is due to differences in other factors related to SES, such as type of institution attended, intensity of enrollment, and so on. However, if a nested table were produced showing SES within type of institution attended within enrollment intensity, the cell sizes would be too small to identify the patterns. When the sample size becomes too small to support controls for another level of variation, one must use other methods to take such variation into account.

To overcome this difficulty, multiple linear regression was used to obtain means that were adjusted for covariation among a list of control variables.[24] Adjusted means for subgroups were obtained by regressing the dependent variable on a set of descriptive variables such as gender, race–ethnicity, SES, and so on. Substituting ones or zeros for the subgroup characteristic(s) of interest and the mean proportions for the other variables results in an estimate of the adjusted proportion for the specified subgroup, holding all other variables constant. For example, consider a hypothetical case in which two variables, age and gender, are used to describe an outcome, Y (such as attaining a degree). The variables age and gender are recoded into a dummy variable representing age, A, and a dummy variable representing gender, G:

Age	A
24 years or older	1
Less than 24 years old	0
and	
Gender	G
Female	1
Male	0

The following regression equation is then estimated from the correlation matrix output from the DAS:

$$\hat{Y} = a + b_1 A + b_2 G \qquad (5)$$

[24]For more information about weighted least squares regression, see Michael S. Lewis-Beck, *Applied Regression: An Introduction*, Vol. 22 (Beverly Hills, CA: Sage Publications, Inc., 1980); William D. Berry and Stanley Feldman, *Multiple Regression in Practice*, Vol. 50 (Beverly Hills, CA: Sage Publications, Inc., 1987).

To estimate the adjusted mean for any subgroup evaluated at the mean of all other variables, one substitutes the appropriate values for that subgroup's dummy variables (1 or 0) and the mean for the dummy variable(s) representing all other subgroups. For example, suppose Y represents attainment, and is being described by age (A) and gender (G), coded as shown above, with means as follows:

Variable	Mean
A	0.355
G	0.521

Next, suppose the regression equation results in:

$$\hat{Y} = 0.15 + 0.17A + 0.01G \tag{6}$$

To estimate the adjusted value for older students, one substitutes the appropriate parameter estimates and variable values into equation 6.

Variable	Parameter	Value
a	0.15	—
A	0.17	1.000
G	0.01	0.521

This results in:

$$\hat{Y} = 0.15 + (0.17)(1) + (0.01)(0.521) = 0.325$$

In this case, the adjusted mean for older students is 0.325 and represents the expected outcome for older students who resemble the average student across the other variables (in this example, gender). In other words, the adjusted percentage who attained after controlling for age and gender is 32.5 percent (0.325 x 100 for conversion to a percentage).

It is relatively straightforward to produce a multivariate model using the DAS, since one of the DAS output options is a correlation matrix, computed using pairwise missing values. In regression analysis, there are several common approaches to the problem of missing data. The two simplest are pairwise deletion of missing data and listwise deletion of missing data. In pairwise deletion, each correlation is calculated using all of the cases for the two relevant variables. For example, suppose you have a regression analysis that uses variables X1, X2, and X3. The regression is based on the correlation matrix between X1, X2 and X3. In pairwise deletion the correlation between X1 and X2 is based on the nonmissing cases for X1 and X2. Cases missing on either X1 or X2 would be excluded from the calculation of the correlation. In listwise deletion the correlation between X1 and X2 would be based on the nonmissing values for X1, X2, and

X3. That is, all of the cases with missing data on any of the three variables would be excluded from the analysis.[25]

The correlation matrix can be used by most statistical software packages as the input data for least squares regression. That is the approach used for this report, with an additional adjustment to incorporate the complex sample design into the statistical significance tests of the parameter estimates (described below). For tabular presentation, parameter estimates and standard errors were multiplied by 100 to match the scale used for reporting unadjusted and adjusted percentages.

Most statistical software packages assume simple random sampling when computing standard errors of parameter estimates. Because of the complex sampling design used for the NPSAS survey, this assumption is incorrect. A better approximation of their standard errors is to multiply each standard error by the design effect associated with the dependent variable (DEFT),[26] where the DEFT is the ratio of the true standard error to the standard error computed under the assumption of simple random sampling. It is calculated by the DAS and produced with the correlation matrix.

[25]Although the DAS simplifies the process of making regression models, it also limits the range of models. Analysts who wish to use an approach other than pairwise treatment of missing values or to estimate probit/logit models (which are the most appropriate for models with categorical dependent variables) can apply for a restricted data license from NCES. See John H. Aldrich and Forrest D. Nelson, Linear Probability, Logit and Probit Models (*Quantitative Applications in Social Sciences*, Vol. 45) (Beverly Hills, CA: Sage, 1984).

[26]The adjustment procedure and its limitations are described in C.J. Skinner, D. Holt, and T.M.F. Smith, eds., *Analysis of Complex Surveys* (New York: John Wiley & Sons, 1989).

United States
Department of Education
Washington, DC 20208–5652

Official Business
Penalty for Private Use, $300

Postage and Fees Paid
U.S. Department of Education
Permit No. G–17

Standard Mail (A)